Bulletin of the British Ornithologists' Club

Volume 127, No. 3
September 2007

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MEETINGS are normally held in the **Sherfield Building** of **Imperial College**, South Kensington, London SW7. The nearest Tube station is at South Kensington; a map of the area will be sent to members, on request. (Limited car parking facilities can be reserved [at a special reduced charge of **£5.00**], on prior application to the Hon. Secretary.)

The cash bar is open from **6.15 pm**, and a buffet supper, of two courses followed by coffee, is served at **7 pm**. (A vegetarian menu can be arranged if ordered at the time of booking.) Informal talks are given on completion, commencing at about 8 pm.

Dinner charges are **£22.50** per person (since 1 January 2007).

FORTHCOMING MEETINGS

See also BOC website: **http://www.boc-online.org**

25 September—Lord Cranbrook—*Swiftlets: retrospect and prospects*
The swiftlets form a distinctive group, extending across the Indo-Pacific but most diverse in South-east Asia. Some (but not all) species can echo-locate, and some (but not all) build nests in which the edible component is sufficiently copious to afford them high market value. Fifty years ago, the taxonomy of the group was in confusion. In succeeding decades, a variety of field and museum characters have proved valuable indicators of specific identity, and latterly molecular studies have provided additional evidence. Yet, a convincing phylogeny remains elusive and there are key areas in which further work is needed. Over the same period, there has been enhanced research-based understanding of the birds' reproductive biology and a large increase in the numbers of swiftlets breeding in managed colonies, in many cases in specially constructed buildings. Future prospects of this new and unusual form of domestication will be discussed. As a key task in his first post-graduate job, in 1956 Lord Cranbrook's employer, the late Tom Harrisson, Curator of the Sarawak Museum, charged him with "sorting out the swiftlets". This spurred a lifetime's interest in the group, leading to many and varied adventures with fellow ornithologists and with the disparate community of birds'-nest farmers and traders, whose unusual business is carried out in a fascinating variety of places and conditions. Lord Cranbrook has held a number of high positions in biological/ecological organisations in this country including that of Editor of *Ibis* (1973–80), and Chairman of English Nature (1990–98).

Applications to Hon. Secretary (address below) by ***11 September***

6 November—David Fisher—*Birds of Australia*
David will talk about the birds of Australia with particular reference to the families that occur there and the evolution of the Australian avifauna. David Fisher is a director of Sunbird, one of the UK's leading bird tour operators. For 19 years he was Sunbird's Managing Director, but retired from that position in 2001. David has led more than 130 tours to 28 countries on six continents, as well as travelling widely on his own. He has spent a total of more than three years in the field in South America and more than two years each in Australia and Africa. David is a member of the East African Rarities Committee, Chairman of Seychelles Bird Records Committee, and is a council member of the Neotropical Bird Club. He also edits the highly regarded Birdwatchers' Guides series of birding site guides. David is also a committee member of BOC.

Applications to Hon. Secretary (address below) by ***23 October***

Overseas Members visiting Britain are especially welcome at these meetings, and the *Hon. Secretary* would be very pleased to hear from anyone who can offer to talk to the Club giving as much advance notice as possible—please contact: S. A. H. (Tony) Statham, Ashlyns Lodge, Chesham Road, Berkhamsted, Herts. HP4 2ST, UK. Tel. +44 (0) 1442 876995 (or e-mail: boc.sec@bou.org.uk).

Bulletin of the BRITISH ORNITHOLOGISTS' CLUB

Vol. 127 No. 3 Published 12 September 2007

CLUB ANNOUNCEMENTS

Members' attention is drawn to the Chairman's update on *The BOC—A vision for the future?* which was announced at the AGM, in his annual report (see *Bull. Brit. Orn. Cl.* 127: 87). A full summary is presented below within the proceedings of the 944th meeting held on 24 April.

The 942nd meeting of the Club was held on Tuesday 30 January 2007, in the Sherfield Building Annexe, Imperial College, London. Twenty-one members and eight guests were present.

Members attending were: Cdr. M. B. CASEMENT, RN (*Chairman*), Miss H. BAKER, S. E. CHAPMAN, Prof. R. A. CHEKE, Dr J. COOPER, G. S. COWLES, F. M. GAUNTLETT, D. GRIFFIN, K. HERON, Dr J. P. HUME (*Speaker*), R. R. LANGLEY, Dr C. F. MANN, D. J. MONTIER, Mrs M. N. MULLER, P. J. OLIVER, R. C. PRICE, Dr R. P. PRŶS-JONES, P. J. SELLAR, S. A. H. STATHAM, M. J. WALTON and P. J. WILKINSON.

Guests attending were: Mrs C. R. CASEMENT, A. S. CHEKE (*Speaker*), Dr J. A. COLES, Mrs M. H. GAUNTLETT, Mrs J. A. JONES, Mrs M. MONTIER, G. MOREL and C. A. MULLER.

After dinner, Dr Julian Hume and Anthony Cheke discussed *The ecological history of the Mascarenes*. The Mascarene Islands—Mauritius, Réunion and Rodrigues—are in the western Indian Ocean. Unlike many oceanic islands, they remained pristine until comparatively recently. Arab and Portuguese traders were probably aware of them from the 13th century, but it was not until the arrival of the Dutch on Mauritius in 1598, the French on Réunion in 1648 and on Rodrigues in the late 17th/early 18th centuries that written records were kept. As a result, a precise chronology of exotic introductions, deforestation and extermination of the fauna can be ascertained. The palaeontological record commenced in the 1860s with simultaneous discoveries on Mauritius, in the marsh Mare aux Songes, and limestone caves on Rodrigues. By the 1890s, interest had faded and both sites were forgotten. Interest was rekindled with the discovery of a fossil horizon in the Mare aux Songes in 2005/6 and a pristine cave on Rodrigues, which have yielded vast numbers of fossils, including bones, eggshells, leaves, branches, seeds and even fungi. Analysis of this material is in progress. The ecological history of the Mascarenes is the subject of a new A. & C. Black publication, *Lost land of the Dodo*, by Anthony Cheke and Julian Hume, due September 2007.

The 944th meeting of the Club was held on Tuesday 24 April 2007, in the Sherfield Building Annexe, Imperial College, London, following the AGM. Seventeen members and four guests were present.

Members attending were: Cdr. M. B. CASEMENT, RN (*Chairman*), Miss H. BAKER, D. R. CALDER, D. J. FISHER, J. B. FISHER, F. M. GAUNTLETT, D. GRIFFIN, Dr J. P. HUME, R. R. LANGLEY, Dr C. F. MANN, D. J. MONTIER, Mrs M. N. MULLER, Dr R. P. PRŶS-JONES, P. J. SELLAR, S. A. H. STATHAM, C. W. R. STOREY and P. J. WILKINSON.

Guests attending were: Mrs C. R. CASEMENT, Mrs B. FISHER, Mrs M. H. GAUNTLETT and Mrs M. MONTIER.

After dinner, several members gave short talks, preceded by the Chairman with an update on *The BOC—A vision for the future?* As announced at the AGM, Committee has spent much time in consultation and discussion, preparing a long-term vision for the Club's future, especially the recommendations for future publishing options of the Bulletin Subcommittee (BSC). A brief explanation of this review

summarised the recommendations and decisions of a special meeting of the Committee, together with a number of experienced Members of the Club, held at Tring on 15 February. The chief topic was the range of options for the future publication of the Bulletin. **Increase scope?** It was agreed that the specialist role of the Bulletin concerning taxonomy and distribution be maintained. **Online publication?** High costs and complexity ruled out this option, for now. **Change format?** Ideas for increasing to the size of *Ibis*, but with only two issues per year, were unanimously rejected. Quarterly issues would continue, with the slightly larger 'journal size' (B5) format to be implemented in 2008. **Commercial partner?** Although attractive for gaining institutional subscribers, the Bulletin was currently unable to achieve commercial viability. The special meeting unanimously agreed not to pursue this. **Publication as a sister journal to *Ibis*?** Although joint distribution would reduce costs, this was not currently viable and will not be pursued. In summary, it was overwhelmingly agreed to maintain the Bulletin as an independent publication with minor changes.

The following was also agreed. **Dinner meetings.** A survey was being conducted calling for suggestions prior to agreeing a programme for 2008. **Bulletin scanning project.** Steven Gregory had managed this project almost single-handedly for 8–10 years, scanning 24,000+ pages to date. Volumes 1–40 are now available, on CD, for purchase, but professional assistance was needed to complete the project, and this is now underway. It is hoped that the remaining volumes (50–117) may become available sometime in 2008. **BOC website.** The website requires a major revamp, to improve accessibility and better promote the aims, activities and products of the Club. Ideas and suggestions and, more importantly, offers to help are welcome—to the *Hon. Secretary*, please. **Bulletin SubCommittee (BSC).** Following the resignation of Chris Feare, the meeting welcomed Nigel Collar's agreement to chair this forum, to advise on the future development of the Bulletin and the marketing of the product of the scanning project.

Tony Statham further addressed the topic of dinner meetings and thanked all those who had completed the questionnaire distributed with *Bull. Brit. Orn. Cl.* 127(1). He suggested that the majority view was concerned with the expense, with many members finding it both inconvenient and costly to attend at present. Recommendations would be put to Committee, to consider possible changes in 2008.

The *Hon. Secretary* continued with a simple outline of the *Preferred terrestrial locomotion of avifauna*. He queried why some birds apparently preferred to 'walk' rather than hop and vice versa. Several scientific papers had examined the feeding and foraging efficiency of various species, to conserve and maximise energy, but these did not apparently identify the more naïve question of why, for example, some relatively small species, e.g. Chaffinch *Fringilla coelebs* and Dunnock *Prunella modularis* favoured 'walking' compared to European Robin *Erithacus rubecula*. He compared these with slightly larger species; many *Turdus* tend to hop, or even run, whereas Sturnidae are familiar species tending to 'walk'. Clearly, some genera or species possess anatomical factors preventing one form of locomotion or another. Most longer legged species, e.g. waders, storks, ibises and herons, tend to walk and would have some difficulty in hopping, perhaps implying that there may be some relationship between body mass and leg length that determines forward locomotion, and feeding and foraging requirements. Whilst larger species perhaps do not hop as a rule, it is curious to note that many vultures exhibit a type of hop and run when approaching a food source. The *Hon. Secretary* concluded that his query could be an avenue for further research and acknowledged that there were several other genera for which terrestrial locomotion was not a priority at all, e.g. those species that are largely arboreal or aerial.

Julian Hume outlined *The birds of Hawaii: conservation and status*. Hawaii is a remote chain of volcanic islands, atolls and seamounts as famous for its geological history as for its ecology. Endemic biotas have witnessed spectacular radiations amongst birds, plants, insects and snails, but have also suffered severe human disturbance; sadly, extinctions now outnumber extant species by some margin. Julian's recent visit to Kauai, Oahu and Maui indicated that some birds are still in serious decline, despite conservation efforts, whilst others have dramatically recovered due to intense management. Complications due to inertia and misconstrued ethics are negatively impacting the Hawaiian conservation movement.

Robert Prŷs-Jones provided an intriguing overview of *Gray's Grasshopper Warbler and Meinertzhagen: a case of long-distance fraud*. Gray's Grasshopper Warbler *Locustella fasciolata* is an east Asian species supposedly recorded in Europe on three occasions, all as specimens killed at lighthous-

es: a first-winter female at Île d'Ouesssant, France, in September 1913, an adult male there in September 1933, and a first-winter female at Lodbjerg, Denmark, in September 1955. The first two are held at the Natural History Museum (NHM), Tring, UK, and the last at the Zoological Museum, University of Copenhagen, Denmark. The male is a Meinertzhagen specimen and in reality is almost certainly a specimen collected by A. Owston, in June 1908, in Manchuria and, as such, the longest-distance Meinertzhagen fraud yet documented (*Brit. Birds* 99: 506–516, 2006). The facts leading to this conclusion were presented, illustrated by a cross-section of relevant specimens. Persons interested in placing Richard Meinertzhagen's ornithological misdemeanours in the wider context of his life should read the recent book by Brian Garfield (*The Meinertzhagen mystery: the life and legend of a colossal fraud*. 2007, Potomac Books).

Ben Fisher read a short extract from a letter dated 1946 by Dr Norman Joy, MRCS, FES, MBOU. Joy authored *A practical handbook of British beetles* (1934) and appears to have been rather sensitive following poor reviews of his book. He wrote 'I am doing bird migration down here. I wish the British Ornithologists' Union were more like the RES. We have no library or lecture room. Only a general meeting once a year. An ordinary member is not allowed to say anything at any time. Now the British Ornithological Trust is worse still. I have been discovering all sorts of new things about migration simply by keeping my eyes open and using common sense, so I am being treated as Lister, Ross and Sir Herbert Barker and others were'.

REVIEW

Garfield, B. 2007. *The Meinertzhagen mystery: the life and legend of a colossal fraud*. Potomac Books, Washington DC. 353 pages, 8 pages of black-and-white photographs. US$27.50.

The unquestionably colourful life of the ornithologist Richard Meinertzhagen continues to attract unparalleled attention. This new biography, by the American writer Brian Garfield, is an extraordinary indictment of the flamboyant colonel's largely imaginary place in history. Since Mark Cocker's deservedly award-winning (1989) near-exoneration of the legend, 'RM' has come under considerable further scrutiny and, indeed, outright attack. Ornithologists, principally Robert Prŷs-Jones and Pamela Rasmussen, are engaged in a long-term study of the extent to which the Natural History Museum's Meinertzhagen material is tainted by the accusations of fraud, whilst historians have been spurred on by J. N. Lockman's *Meinertzhagen's diary ruse* (1995), which conclusively demonstrated the extent to which the colonel falsified entries concerning T. E. Lawrence.

Garfield has arguably dug deeper than any previous commentator in his quest to prove or disprove any of the man's claims, contentious or previously uncontested alike, aided by a willing battery of researchers and assistants, and by access to many documents until recently unavailable to the public. The result is a near-complete debunking of 'RM's' right to a place in history. The famous 'haversack ruse' was appropriated by Meinertzhagen for his own; that he ever met Hitler, never mind with a loaded pistol on his person, is extremely doubtful; and so the list of flights of fancy in which Richard Meinertzhagen indulged proceeds almost never-endingly on. Once described as a 'soldier, scientist, spy', his right to any of these titles wilts under Garfield's scrutiny, backed up with extraordinary detail, usually in footnotes. Despite the scholarly lengths to which the author has gone, as befits a writer of fiction, *The Meinertzhagen mystery* is a gripping and exciting read.

Questions remain, some salacious (what was 'RM's' relationship with Theresa Clay?), or possibly criminal (did 'RM' murder his second wife, Anne Jackson, as seems possible?), and still others psychological (just why did he do it and did he expect to be found out?). Garfield's book will surely encourage a new generation of 'RM' watchers, who will of necessity agree that the life of Richard Meinertzhagen could never be described as 'ordinary'.

Guy M. Kirwan

Range extensions, taxonomic and ecological notes from Serranía de los Yariguíes, Colombia's new national park

by Thomas M. Donegan, Jorge E. Avendaño-C., Elkin R. Briceño-L. & Blanca Huertas

Received 7 June 2006

In Colombia, the Andes split into three more or less parallel, north–south oriented mountain ranges, the West, Central and East Andes. At 6°–7°N, the East Andes reach their widest point and the Serranía de los Yariguíes (or Serranía de los Cobardes) forms an isolated north-west spur rising from the río Magdalena Valley to *c.*3,400 m (Fig. 1). Serranía de los Yariguíes lies entirely within dpto. Santander. Details of its geography are presented in Donegan & Huertas (2005) and Huertas & Donegan (2006).

Until recently, the relatively small Cachalú reserve (Charalá and Virolín, dpto. Santander) was considered to harbour the only remaining humid temperate oak

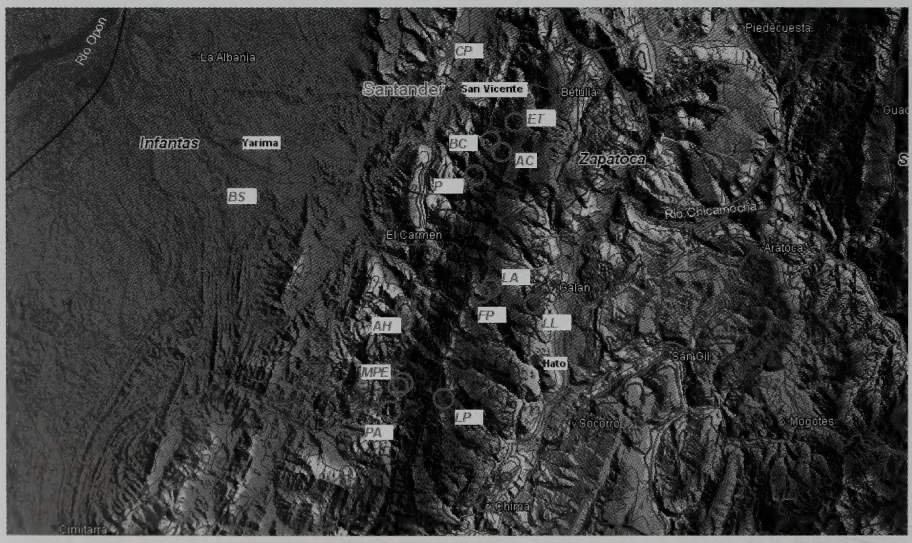

Figure 1. Location of study sites in Serranía de los Yariguíes, as follows (low to high elevation, west to east): BS: Bajo Simacota (W: 130 m); MPE: Montana Pedro Elías (W: 500 m and 750 m); PA: Plan de Álvarez (W; 500–1,350 m); CP: Cerro de la Paz (W: 1,000 m and 1,300 m); AH: Alto Honduras (W: 1,600 m); P: Primavera (W: 1,700 m); ET: El Talisman (W: 2,000 m); BC: Bajo Cantagallos (W: 1,000–2,300 m); AC: Alto Cantagallos (W: 2,450 m); LP: Lepipuerto (W: 2,900–3,000 m); FP: Filo Pamplona (E: 3,200 m); LA: La Aurora (E: 2,700 m); LL: La Luchata (E: 2,000 m). Also Fundación Natura (2003) site Zapatoca (1,600–2,800 m) and historic ICN collecting locality Chima (1,400 m). The rivers extending from Chima to the río Chicamocha and isolating Yariguíes from the main East Andean range are the ríos Sogamoso and Suárez.

TABLE 1
Sites in Serranía de los Yariguíes studied by ourselves and others.

Study site	Elevation (m)	Slope	Coordinates	Municipality participants	Study	Dates	Bird field work
Yarima–Bajo Simacota	100–150	west	06°46'N, 73°44'W	Simacota	YARÉ	January 2006; December 2006	TMD, JEAC; JEAC
Plan de Alvarez, San Juan Bosco	500–1,350	west	06°27'N, 73°32'W	Santa Helena del Opón	JEAC thesis field work	September 2006	JEAC
Montaña Pedro Elías	500–750	west	06°31'N, 73°37'W	Simacota	JEAC thesis field work	October 2006; February 2007	JEAC (both)
Cerro de la Paz (east slope / Montebello)	1,000	west	06°59'N,73°26'W	Zapatoca	EBA	January 2003; October 2006; 1956–58	TMD, ERBL; JEAC; J. I. Hernández, J. I. Borrero & H. Vidales.
Cerro de la Paz (west slope / Barro Amarillo)	1,300–1,350	west	06°59'N, 73°26'W	Zapatoca	EBA	January 2004; November 2006	TMD, ERBL; JEAC
Bajo Cantagallos	1,000–2,300	west	06°49'N, 73°22'W	San Vicente de Chucurí	EBA	January 2004; November 2006; January 2006	TMD, ERBL; JEAC; M. Sharp, C. Turner & J. C. Luna.
Honduras Alto	1,600	west	06°37'N, 73°30'W	El Carmen de Chucurí	YARÉ	January 2006; December 2006	TMD, JEAC; JEAC
Primavera	1,700	west	06°47'N, 73° 25'W	San Vicente de Chucurí	YARÉ	February 2006	M. Sharp; C. Turner; J. C. Luna
El Talisman (now ProAves nature reserve 'Reinta Cielo Azul')	2,000	west	06°51'N, 73°22'W	San Vicente de Chucurí	EBA	January 2003; November 2006; 2004 to present.	TMD, BH, ERBL; JEAC; J. C. Luna *et al.*
Alto Cantagallos	2,450	west	06°49'N, 73°22'W	San Vicente de Chucurí	EBA	January 2004; November 2006	TMD, ERBl; JEAC
Lepipuerto, Alto río Chimera	2,900–3,000	west	06°28'N, 73°28'W	El Carmen de Chucurí / Simacota	EBA	January 2005	TMD, BH, M. Donegan
Chima	1,400	east	06°22'N, 73°22'W	Simacota	ICN collections	1968–72	P. Cala & P. Bernal
Zapatoca (vereda Bellavista / 'Páramo de Don Toribio')	1,600–2,800	east	06°48'N, 73°21'N	Zapatoca	Fundación Natura (2003)	2002	C. Roa
La Luchata	2,000	east	06°38'N, 73°19'W	Galán	YARÉ	July 2005; April 2006	TMD, JEAC; JEAC
La Aurora	2,700	east	06°38'N, 73°24'W	Galán	YARÉ	July 2005; April 2006	TMD, JEAC; JEAC
Filo Pamplona	3,200	east	06°38'N, 73°24'W	Galán	YARÉ	July 2005	TMD, JEAC

forest in the northern East Andes (e.g. Stattersfield *et al.* 1998). However, since 2003, we have studied a significant forest wilderness in Serranía de los Yariguíes on Colombian Evaluation of Biodiversity in the Andes (EBA) Project field work. This forest had gone unstudied due to historical political instability. The only published biological notes from the massif involved a brief lowland study of vertebrates during which a few tens of bird specimens were collected (Borrero & Hernandez 1957), with various other specimens and ad hoc observations mentioned elsewhere (e.g. Romero 1983, Bates 1997, Renjifo *et al.* 2002, Fundación Natura 2003). We returned in 2004–05 for further studies on EBA Project field work and in 2005–06 on the BP Conservation Programme-sponsored Proyecto Yariguíes Assessment and Research Expedition (YARÉ), to include the entire elevational range and both slopes of the range in our studies.

Aerial surveys by TMD and BH and satellite maps (IGAC 1999) revealed Serranía de los Yariguíes to constitute one of the largest premontane and montane forest wildernesses in the northern Andes (Donegan & Huertas 2005). Pristine primary forest covers most of the west slope and ridgeline, whilst the east slope is largely deforested. During our field work in 2003–06, we studied habitats on the west slope at 100–3,000 m, the highest elevation being accessed by helicopter, and on the east slope at 2,000–3,200 m. JEAC returned to several sites to undertake additional surveys in 2006–07.

Details of all sites studied are presented in Table 1. Access and characteristics of each are described in Donegan & Huertas (2005) and Huertas & Donegan (2006). Notably, the west slope appears more humid than the east, being characterised by day-round ground-level fog above 1,500 m and, especially at higher elevations, extraordinary levels of precipitation.

Subsequent to our field work and that of others in the region (e.g. Fundación Natura 2003), Serranía de los Yariguíes has been declared a 78,000-ha National Natural Park (Ministerio del Medio Ambiente, Desarrollo y Vivienda 2005), an Alliance for Zero Extinction site (Ricketts *et al.* 2005) and an Important Bird Area (AICA: Franco & Bravo 2005), and Fundación ProAves has established a nature reserve there (see Donegan & Huertas 2005, Huertas & Donegan 2006).

Study sites

Study sites are set out in Table 1. Each site was located within primary or mature forest as far as practicable from human populations and was studied for five days. Exceptions were: Bajo Simacota, a threatened lowland forest fragment of *c.*3 km × 4 km where secondary forest was also surveyed; and Cerro de la Paz, La Luchata, Bajo Cantagallos and El Talisman which each included some forest-edge habitats. Our field work methods involved rapid assessment protocols used by previous EBA Project expeditions: (i) mist-netting (10–18 mist-nets per site operated for 12 hours each day); and (ii) observations by two observers and sound-recordings. All birds trapped were photographed and measured (wing, tail, tarsus, culmen and weight; data and photographs available from the authors or ProAves). Mist-netting

mortalities were inevitable in a study of this nature and a handful of specimens of potentially undescribed taxa were also taken. Almost all are housed at Instituto de Ciencias Naturales, Universidad Nacional, Bogotá (ICN), with a handful of duplicates at Universidad Industrial de Santander, Bucaramanga (UIS). Blood and tissue samples have been deposited at UIS, Instituto Alexander von Humboldt (IAVH) and Universidad de los Andes. TMD's sound-recordings are archived at the British Library National Sound Archive, London, and most at IAVH in Colombia. Some recordings mentioned herein will be posted on Xeno-Canto (www.xeno-canto.org). Various photographs were published in Donegan & Briceño (2005) and Donegan & Avendaño (2006).

This paper details the most significant new distributional records from our field work. Also mentioned are certain of the *c.*130 specimens at ICN collected mostly in secondary habitats around San Vicente de Chucurí by J. I. Hernández, H. Vidales and J. I. Borrero in the 1950s and 1960s; by R. Ardila in the early 1980s principally at Cerro de la Paz but also at Primavera; and those collected by P. Bernal and P. Cala in the río Suárez Valley at Chima in the 1960s and 1970s. We note certain of the records of Fundación Natura (2003) during their brief surveys in the Zapatoca and Landazurí regions. Finally, we are aware of a biological survey funded by the energy company ISA in the early 2000s (referenced in Fundación Natura 2003), but have been unable to locate a copy of the report. In any event, we understand that the surveys took place largely in the San Vicente de Chucurí / Zapatoca region, at premontane elevations, i.e. those habitats in which our observations and those of others have been concentrated.

Although we are aware that many others have worked recently in the East Andes of Santander and Boyacá (notably at Cachalú and Iguaque), we report only new records from the Yariguíes massif and refer to other records from the main East Andes only for species reported here and only to evidence a wider range than currently supposed in mainstream literature. Some data come from DATAves (2006) and other unpublished sources, the accuracy of which we cannot vouch. We exclude from Serranía de los Yariguíes (and hence the direct scope of this paper): (i) sites east of the río Suárez (e.g. collections from Veléz and Suaita at ICN and sites studied recently in Parque Nacional Natural Chicamocha by J. Parra *et al.*); (ii) sites south of *c.*06°15'N (including the Fundación Natura site near Landázuri in Cerro de las Armas); (iii) sites north of Betulia (07°00'N); (iv) the main Eastern Andes; and (v) sites west of Bajo Simacota, e.g. along the río Magdalena and highway.

The following other localities, listed alphabetically with approximate coordinates and (sometimes) elevations, are mentioned herein: Agua de la Virgen, Norte de Santander (08°13'N, 73°24'W; 1,600–1,750 m; East Andes); Albania, Santander (06°52'N, 73°40W; 100–800 m; Magdalena Valley); Aguachica, Cesar (08°19'N, 73°38'W; 200 m; East Andes); Anorí, Antioquia (07°03'N, 75°07'W; 1,500–1,800 m; Central Andes); Bucaramanga, Santander (07°08'N, 73°07'W; East Andes); Cachalú / Charalá / Virolín, Santander (*c.*06°03'N, 73°09'W; 1,850–2,750 m; East Andes); Cerro la Judia, Santander (07°05'N, 73°00'W; 1,000–2,400 m; East Andes); Chicamocha (Parque Nacional Natural), Santander (06°27'N, 72°54'W;

600–2,300 m; East Andes); Cimitarra, Santander (06°20'N, 73°55'W; 100 m; East Andes), laguna Pedro Palo, Cundinamarca (04°45'N, 74°24'W; East Andes); Landázuri, Santander (06°15'N, 73°50'W; East Andes); Chicaque (Parque Nacional), Cundinamarca (04°37'N, 74°18'W; 2,000–2,700 m; East Andes); Frontino, Antioquia (06°25'N, 76°05'W; 2,500–3,900 m; West Andes); Fusagasugá, Cundinamarca (04°20'N, 74°20'W; East Andes); Mámbita, Boyacá (73°20'W, 04°47'W; East Andes); Iguaque (Sanctuario de Fauna y Flora), Boyacá (05°40'N, 73°27'W; East Andes); Landázuri (Cerro de las Armas / vereda Morro Negro Alto), Santander (05°00'N–06°18'N; 73°08'–73°50'W; 1,000–1,700 m; East Andes), Pamplona, Norte de Santander (07°25'N, 72°40'W; East Andes); los Picachos (Parque Nacional Natural), Meta and Caquetá (02°30'–03°10'N, 74°30'–75°00'W; East Andes); Pajarito, Boyacá (05°23'N, 72°42'W; East Andes); Portugal, Lebrija, Santander (07°09'N, 73°17'W, 1,100 m; East Andes); Puerto Olaya, Cimitarra, Santander (06°30'N, 74°22'W; 100 m; Magdalena Valley); Rogitama, Arcabuco, Boyacá (05°47'N, 73°31'W; East Andes); Rondón (Santa Isabel), Boyacá (05°45'N, 73°04'W; East Andes); Sabana de Torres, Santander (07°25'N, 73°30'N; 100 m; Magdalena Valley); Santa María, Boyacá (04°52'N, 73°45'W; East Andes); Serranía de las Quinchas, Boyacá (06°00'N, 74°00'W; 200–1,700 m; East Andes); Serranía de los Churumbelos, Cauca (01°10'–01°30'N, 76°15'–76°30'W; 300–2,500 m; East Andes); Serranía de San Lucas, Bolivar and Antioquia (06°30–07°30'N, 74°00'–74°30'W; 150–1,400 m, Central Andes); Soatá, Boyacá (05°07'N, 73°07'W; East Andes); Suaita, Santander (06°04'N, 73°28'W; East Andes); Suratá, Santander (07°23'N, 73°00'W; East Andes); Tamá (Parque Nacional Natural), Norte de Santander and Venezuela (07°00'–07°40'N, 72°00'–72°30'W; East Andes); Tambito (Reserva Natural), Cauca (02°30'N, 77°00W; 1,400–2,500 m; West Andes); Tona (finca El Brasil), Santander (07°08'N 73°03'W; East Andes); Veléz, Santander (*c.*06°05'N, 73°42'W; East Andes).

Below, we present details of our observations, followed by a discussion of the species' previously known range in the region and the significance of our record/s. Some taxonomic and ecological notes made during the study are also noted. Numbers in brackets refer to the number of birds caught at a site, with a semi-colon splitting EBA/YARÉ records from later JEAC fieldwork and † indicating any specimens. Where no semi-colon or other note is made, data are from EBA/YARÉ studies. Taxonomy, order and nomenclature follow Remsen *et al.* (2007). Subspecies are noted only where identified to this level.

Major range extensions

The following records involve range extensions of more than 100 km, new biogeographical records or other important records, including taxa new to the Magdalena Valley, East Andes or west slope of the East Andes, southward extensions in range of species known from the Perijá or Tamá mountains, and northward extensions in range of species known from published records only to Cundinamarca or further south on the west slope.

SICKLE-WINGED GUAN *Chamaepetes goudotii*
A typically noisy group was heard at El Talisman, though not observed or sound-recorded. Previously known in the East Andes only as far north as dpto. Cundinamarca, 250 km south of Yariguíes (Hilty & Brown 1986).

SCALED PIGEON *Patagioenas speciosa*
Sound-recorded at Bajo Simacota. There is also a 1970s ICN skin from Veléz, a UIS specimen from Sabana de Torres and records near the río Magdalena in nearby Serranía de San Lucas (Salaman & Donegan 2001) and Puerto Olaya (DATAves 2006: E. Constantino), but no published records from the west slope of the East Andes (Hilty & Brown 1986).

AFRICAN COLLARED DOVE *Streptopelia roseogrisea*
A free-flying bird photographed at Bajo Cantagallos (at *c.*1,800 m). An escaped pair was recently observed in Norte de Santander (Donegan & Huertas 2002, Donegan *et al.* 2003). Apparently an isolated individual, but this common cagebird in Colombia is clearly prone to escape and has become established elsewhere in the world.

BARRED PARAKEET *Bolborhynchus lineola*
Observed frequently in small flocks of up to 16 over La Aurora, Filo Pamplona and Alto Cantagallos. Its high, fast-paced calls were sound-recorded. A captive individual, apparently from the adjacent east flank of the río Sogamoso at 1,300 m (municipio Girón, vereda Altamira), was seen on 8 April 2004 (JEAC). *B. lineola* is known on the west slope of the East Andes only near Salazar in the southern Perijá Mountains, in Norte de Santander, and Peñon, Cundinamarca (Rodríguez & Hernández 2001), as well as in the southernmost section in Caquetá (Hilty & Brown 1986) and from the east slope in Cundinamarca and Cauca (Salaman *et al.* 2002b). Though still few, these records suggest the species may, at least formerly, have been continuously distributed in suitable habitat in the East Andes. Our records close a *c.*300 km gap between those in Cundinamarca and Norte de Santander.

SCALY-NAPED PARROT *Amazona mercenaria*
Small flocks observed frequently and sound-recorded at Lepipuerto, Alto Honduras, Alto Cantagallos, La Aurora and Filo Pamplona, and common at La Judía at 2,400 m (JEAC, ERB). Reported on the west slope of the East Andes only north to Cundinamarca (Hilty & Brown 1986, Rodríguez & Hernández 2001), 250 km to the south, although hypothesised possibly to extend this far north (Rodríguez & Hernández 2001) and recorded in Boyacá on the east slope (Salaman *et al.* 2002b). Also recorded in the northernmost East Andes, in Serranía de Perijá (Hilty & Brown 1986). The species occurs usually at low densities (Fjeldså & Krabbe 1990), making its abundance in the large primary premontane and montane forests of Yariguíes notable.

CENTRAL AMERICAN PYGMY-OWL *Glaucidium griseiceps*
One sang for over 30 minutes after dusk at Cerro de la Paz (1,000 m) and was sound-recorded. Also recently observed at the same site, at 1,350 m (JEAC), and collected at Montaña Pedro Elías (0; 1†). The song comprised a repeated series of monotone hoots at 1.1–1.5 kHz, given every *c.*0.035 s and typically in series' of 8–10 notes (Fig. 2). Our recordings are similar to those described by Howell & Robbins (1995) and recordings of *G. griseiceps* by P. M. Valenzuela in Cotacachi-Cayapas Ecological Reserve, Ecuador (Jahn *et al.* 2002), and by S. Woltmann at río San Juan, refugio Bartola, Nicaragua (no. 6785 www.xeno-canto.org). *G. griseiceps* is known in South America from specimens taken in north-west Colombia and north-west Ecuador (Howell & Robbins 1995, Robbins & Howell 1995) and observations in Los Katios National Park in 1991 (F. G. Stiles & L. Rosselli *in litt.* 2006). We suspect it was *G. griseiceps* (and not *G. brasilianum*) that was observed in humid habitats in Anorí, Antioquia (A. M. Cuervo *in litt.* 2006) and in the western foothills of Serranía de San Lucas (Salaman *et al.* 2002a). Our record is the first East Andes and Magdalena Valley record of *G. griseiceps* and a range extension of *c.*300 km east from the Sinú (or *c.*150 km east from the Central Andes, if confirmed). The voices of *G. griseiceps* and the *ridgwayi* group of *G. brasilianum* in northern South America are very similar, comprising similar numbers of hoots, delivered at a similar frequency and pace. That of *G. griseiceps* differs from the *G. b. ridgwayi* group from Venezuela (Boesman 1999), Central America (Xeno-canto nos. 582 and 1322) and those of the nominate race east of the Andes (Xeno-canto nos. 275 and 6305), in being delivered slightly slower (>0.03 s / note vs. <0.03 s / note in *G. brasilianum*) and with a more plaintive quality involving a flatter (not intonated) note spectrographically (P. Coopmans *in litt.* 2006). In Central and South America, they further separate by habitat, with *G. griseiceps* in humid forest and *G. brasilianum* in drier regions (S. Woltmann & P. Coopmans *in litt.* 2006). It is possible that *G. griseiceps* ranges continuously in suitable habitat of the Chocó and Nechí Endemic Bird Areas, and across the northern Central Andes to humid lowlands of the Magdalena Valley.

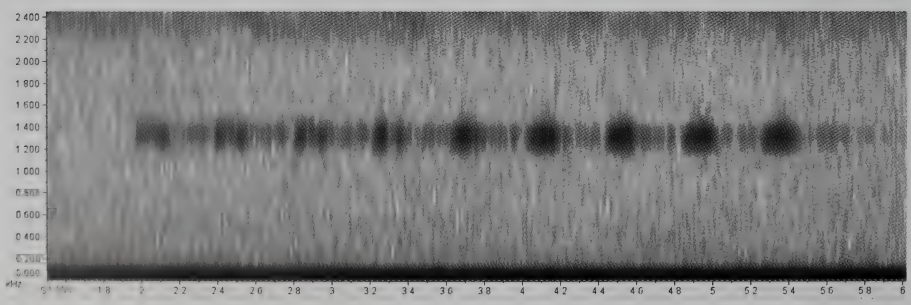

Figure 2. Sonogram of song of Central American Pygmy-owl *Glaucidium griseiceps*, Cerro de la Paz (1,000 m), Serranía de los Yariguíes, January 2003. Recording by TMD.

GREAT POTOO *Nyctibius grandis*
Sound recorded at Bajo Simacota and Montaña Pedro Elías. Known previously from only one other locality in the Magdalena Valley (Hilty & Brown 1986).

WHITE-TIPPED SWIFT *Aeronautes montivagus*
Common throughout Serranía de los Yariguíes with flocks of 5–40 daily at El Talisman, La Luchata (photos, video and sound-recordings), below Alto Honduras (sight), Montaña Pedro Elías and down to the towns of Galán and San Vicente de Chucurí and environs. An overlooked specimen is from near San Vicente de Chucurí, taken in the 1970s (ICN 28040). Calls consisted of a screaming trill given at *c*.25 notes/s, varying considerably in frequency between individuals or within a call, but typically at *c*.5–7 kHz. Unpublished observations on the west slope exist in Cundinamarca and Boyacá (e.g. Chicaque: C. D. Cadena *in litt.* 2006) and in Soatá and Chicamocha (F. G. Stiles *in litt.* 2006). Two females in body and wing moult were taken by JEAC north-east of Bucaramanga on 24 December 2004 (ICN 35330, 35331) where it is also common. This was probably a pre-breeding moult, given that the species supposedly breeds in April–July (Hilty 2003, Strewe 2004). Though common in parts of Colombia, *A. montivagus* was previously considered hypothetical in the country, being known solely from sight records including from three scattered localities in the East Andes (Hilty & Brown 1986, Salaman *et al.* 2002b, Strewe 2004, Ramírez & Ocampo 2006).

TAWNY-BELLIED HERMIT *Phaethornis syrmatophorus syrmatophorus*
Trapped and photographed (Fig. 4), at high-elevation sites on both slopes of Serranía de los Yariguíes, at El Talisman (1), Alto Cantagallos (1; 7+1), Lepipuerto (1), La Aurora (1†; 1) and La Luchata (1†; 0). The pale-breasted *columbianus* race is reported from the East Andes north to Cundinamarca (Salaman *et al.* 2002b). The Yariguíes population has little white in the belly, like specimens at ICN from the Central Andes in Quindío and Antioquia, labelled as being the nominate, which has not previously been recorded in the East Andes. In the foothills, it was replaced by Green Hermit *P. guy* (at Montaña Pedro Elías, Cerro de la Paz and Alto Honduras). *P. guy* was also present at La Luchata (2,000 m) in April 2006, the breeding season for most species in the region, whilst *P. syrmatophorus* was not recorded then. *P. syrmatophorus* has not previously been reported anywhere on the west slope of the East Andes. It is apparently absent from Serranía de las Quinchas (F. G. Stiles *in litt.* 2006), perhaps due to the relatively high elevation at which *P. guy* occurs in the region. The records at 2,900 m in Lepipuerto are unusually high for *P. syrmatophorus* in Colombia, though it has been recorded at 3,100 m in Ecuador (Ridgely & Greenfield 2001).

BLACK-MANDIBLED TOUCAN *Ramphastos ambiguus*
Lowland *R. a. abbreviatus* was observed frequently and sound-recorded at Bajo Simacota, Montaña Pedro Elías and Cerro de la Paz (where the head of a recently

hunted bird was photographed). In lower montane forest at Alto Honduras (1,600 m) and El Talisman (2,000 m), probably the same taxon (on a basis of call vs. *R. a. ambiguus*) was heard. Also collected at Albania (ICN skins) and reported below Landázuri (Fundación Natura 2003). Highland *R. ambiguus* populations were also recently heard at Tona (JEAC) but not identified to either of the two possible taxa in the region. *R. a. abbreviatus* ranges to 1,800 m in Venezuela (Hilty 2003) but has been recorded only to 1,300–1,400 m in Colombia (Hilty & Brown 1986, Donegan & Salaman 1999, Salaman & Donegan 2001; F. G. Stiles *in litt.* 2006), with *R. a. ambiguus* in cloud forests on the east slope (e.g. Salaman *et al.* 1999). The higher elevations to which *R. a. abbreviatus* ranges in the Yariguíes suggest that it and *R. a. ambiguus* replace one another on opposite slopes of the East Andes, rather than elevationally. There is unlikely to be any permanent zone of contact due to the high ridgeline of the East Andes in this region. Some recent publications lump *R. a. ambiguus* with *R. a. swainsonii* / *abbreviatus* (Short & Horne 2001, 2002, Remsen *et al.* 2007), whilst others treat them specifically (Hilty & Brown 1986, Ridgely & Greenfield 2001, Hilty 2003, Weckstein 2005). Stiles *et al.* (1999) suggested that splitting *ambiguus* from *swainsonii* / *abbreviatus* would have some vocal and biometrical support. Individuals of *R. a. swainsonii* and *R. a. ambiguus* were recently found to be *c.*1.4% divergent in mtDNA but no *R. a. abbreviatus* were sequenced and it cannot be stated whether *ambiguus* and *swainsonii* / *abbreviatus* are mutually monophyletic (J. Weckstein *in litt.* 2006).

RED-HEADED BARBET *Eubucco bourcieri*

Pairs or small family groups observed by TMD on several occasions at Alto Honduras feeding on a fruiting Melastomataceae also frequented by White-mantled Barbet *Capito hypoleucus*, whilst a pair was photographed at Primavera (C. Turner & M. Sharp: Fig. 5) and a female observed at El Talisman (JEAC). *E. bourcieri* has been observed several times at Chicaque (T. Cowley *et al.* unpubl.; B. Porteous *in litt.* 2006, F. G. Stiles *in litt.* 2006), laguna Pedro Palo, Pajarito and Santa María (F. G. Stiles & L. Rosselli *in litt.* 2006). Apparently fairly continuously distributed in lower montane forest borders on the east slope of the East Andes (Salaman *et al.* 2002b) and Perijá (Hilty 2003), but there are no published records on the west slope of the East Andes.

YELLOW-VENTED WOODPECKER *Veniliornis dignus*

A male observed well, between Galán and La Luchata, in a small patch of secondary woodland at *c.*1,600 m (TMD & JEAC), was identified by its all-red cap, strong facial markings, relatively small size, barred breast and belly, and yellowish undertail. Though widespread in the Central and West Andes, the species was known previously only from one published record in the East Andes, at Fusagasugá, Cundinamarca (Hilty & Brown 1986), 300 km to the south, though it is also known from Venezuela's Mérida range (Hilty 2003).

PYGMY ANTWREN *Myrmotherula brachyura*
A male seen well on several occasions at Montaña Pedro Elías (500 m), foraging from mid levels to the subcanopy in mixed-species flocks (JEAC). It was identified by its narrow black malar and black back with broad white streaks. The similar Pacific Antwren *M. pacifica* was observed in Parque Miraflores, near San Vicente de Chucurí town centre (TMD). *M. brachyura* is known from the Chocó lowlands through the upper río Sinú to upper Nechí (Hilty & Brown 1986). Ours is the first East Andes and Magdalena Valley record of *M. brachyura* and a range extension of 200 km south-east.

RUFOUS-RUMPED ANTWREN *Terenura callinota*
Trapped and photographed at El Talisman (2: ♂ and ♀; 0) and recently observed at Honduras Alto (JEAC). Our photographs are consistent with the nominate race. Previously unknown north of Bogotá in the East Andes of Colombia, *c.*250 km south of El Talisman, with *S. c. venezuelana* in Serranía de Perijá (Zimmer & Isler 2003).

SCHWARTZ'S ANTTHRUSH *Chamaeza turdina*
C. turdina was heard and sound-recorded at El Talisman (JEAC), Alto Cantagallos (JEAC), Lepipuerto (TMD), and La Aurora (0; 1♀† with follicular ovary). Three to four were heard on our 500-m transect at La Aurora. *C. turdina* is known north to 04°35'N on the east slope of the East Andes (Hilty & Brown 1986, Salaman *et al.* 1999, 2002b), but not from the west slope. The Yariguies specimen differs subtly from one taken in Serranía de los Churumbelos by TMD *et al.* (ICN 33448) in having fewer dark throat spots, less obvious moustachial markings and darker brown upperparts. We are unable to assess whether this represents individual or geographic variation, though similar degrees of back colour variation are noted between some *Grallaricula* subspecies (TMD unpubl.). *C. turdina* has been recorded from various 'new' sites in Colombia in recent years (e.g. Álvarez 2000, Salaman *et al.* 2002b, Echeverry & Córdoba 2007), but few specimens or photographs exist. Our recordings recall those from elsewhere: a rapid series of loud, repetitive energetic hoots at 1.5–2.0 kHz, increasing in frequency over time. However, almost all our natural recordings are less than 30 s long, whilst longer calls are typical elsewhere, e.g. Cundinamarca (Álvarez 2000), Parque Nacional Natural los Picachos (M. Álvarez-R. *in litt.* 2006), Serranía de los Churumbelos (A. M. Cuervo *in litt.* 2006) and Venezuela (*C. t. chionogaster*: Boesman 1999), though shorter calls are given in response to playback (Krabbe & Schulenberg 2003a).

SLATE-CROWNED ANTPITTA *Grallaricula nana*
Fairly common by voice at Alto Cantagallos (0; 1†) in November and Lepipuerto (2†, see Donegan & Huertas 2005) in January. Also present at La Aurora (1†), where not heard in July or April. Heard and two collected recently at Suratá, Santander, at 3,000 m (JEAC). The population in Serranía de los Yariguíes and Suratá apparently

represents an undescribed race, possibly together with birds of the northern Central Andes in Antioquia and Risaralda. They have a rather pale orange breast reminiscent of birds in Tamá and Mérida, Venezuela, but lack the white collar of those populations. Specimens of *G. n. nana* from the east slope of the East Andes have ferruginous not orange-red underparts. Sound-recordings broadly recall those from the Central Andes (Álvarez & Cordoba 2002), but differ from Mérida, Tamá and east-slope recordings (Boesman 1999, Álvarez 2000, Krabbe & Schulenberg 2003b). Ours is the first record of *G. nana* for the west slope of the East Andes and the first of birds allied to the Central Andes population in the East Andes.

OCHRE-BREASTED ANTPITTA *Grallaricula flavirostris*
Present at La Luchata (0; 1†), Alto Honduras (0; 1) and El Talisman (0; 1†). Also collected recently by F. G. Stiles at Suaita (ICN). Though fairly widespread on the southern east slope of the East Andes (Hilty & Brown 1986, Salaman *et al.* 2002b), it has not previously been reported on the west slope of the East Andes or north of 02°50'N, 500 km south of Yariguíes. Considerable variation (probably age-related) is evident in Yariguíes, Central Andes and Suaita skins, particularly in the black breast markings. Like *C. turdina*, more research is required to assess whether variation is individual or geographical. An implausibly large number of races of *G. flavirostris* are described from Ecuador but relatively few are considered present in Colombia (Krabbe & Schulenberg 2003a).

WHITE-CROWNED TAPACULO *Scytalopus atratus*
Observed and sound-recorded at Alto Honduras (1†) where fairly common. Sonograms are similar to those from Peru and dpto. Cundinamarca (Krabbe & Schulenberg 1997). Those observed and the specimen showed considerable white belly streaking. One from the east slope of the East Andes, in dpto. Meta, labelled *S. a. atratus* (ICN 32621) shows less streaking. Another, labelled *S. a. confusus*, from Anorí in the Central Andes of Antioquia, taken by A. M. Cuervo (ICN 34387), is intermediate in this feature. Other than the extent of belly streaking, all three specimens are similar. Krabbe & Schulenberg (1997), noting the vocal similarities between birds on the west slope of the East Andes and in Peru, restricted *S. a. confusus* to the Colombian Central and West Andes. It is unknown whether plumage differences between nominate *S. atratus* and '*S. a. confusus*' reflect geographical or individual variation.

TAPACULO *Scytalopus* sp.
A *Scytalopus* was common by voice at El Talisman (0; 2†), but rare at La Luchata (0; 1†). The call comprised a 5–6 s *ap ap ap ap ap*... refrain at *c.*7 notes/s, pitched at *c.*1.5 kHz, and is superficially similar to Nariño Tapaculo *S. vicinior* (Moore *et al.* 1999, Krabbe *et al.* 2001), the recently described Upper Magdalena Tapaculo S. rodriguezi (Krabbe et al. 2005) and some recordings provisionally assigned to *S. meridanus* from premontane Venezuela (e.g. sonogram 67 *in* Krabbe & Schulenberg

1997, from Los Frailes Hotel, Mérida, by P. Coopmans). As will be discussed further elsewhere (Donegan & Avendaño-C. ms), the Venezuelan recording noted above may not relate to *S. meridanus* but could be of an undescribed taxon related to the Yariguíes population.

Certain lower montane specimens assigned to *S. meridanus* from the east slope of the East Andes (e.g. from near Pamplona, Norte de Santander, at Museo La Salle, Bogotá (MLS 3990–93), a 'Bogotá' skin (BMNH 89.9.10.995) (see Acknowledgements for acronyms) probably concern the same species as the Yariguies population. They have broadly similar plumage to many other *Scytalopus* in Colombia previously assigned to *S. femoralis* (e.g. Hilty & Brown 1986) and differ from *S. vicinior* and *S. rodriguezi* in biometrics and plumage tone (Donegan & Avendaño ms). The Luchata bird has an obvious wingbar on the greater coverts, apparently an immature feature. Recordings of the Yariguíes and Mérida populations differ from those of *S. vicinior* in that the individual notes are upstrokes (increasing in frequency) but downstrokes (decreasing in frequency) in *S. vicinior*, and from S. rodriguezi in being faster and less variable in intra-note frequency.

S. vicinior is considered present only on the west slope of the West Andes (Krabbe & Schulenberg 1997), north to dpto. Risaralda, 350 km south-west of Yariguíes (Cuervo *et al.* 2003), with *S. rodriguezi* known only from the headwaters of the Magdalena Valley (Krabbe et al. 2005). Two recent studies in the Central Andes did not find *S. vicinior* (Cuervo *et al.* 2005, Krabbe *et al.* 2005), nor have our studies of *Scytalopus* in most major Colombian and some European collections from the East Andes. Doubt was correctly cast on the identity of historic specimens, supposedly of this species, from the Central and East Andes (Krabbe & Schulenberg 1997), which appear likely to refer to Long-tailed Tapaculo *S. micropterus*, Stiles's Tapaculo *S. stilesi*, Spillmann's Tapaculo *S. spillmanni*, the undescribed taxon discussed here, or other morphologically similar species.

SPILLMANN'S TAPACULO *Scytalopus spillmanni*

Sound-recorded and trapped at La Aurora (2†; Fig. 5). *S. spillmanni* has also recently been reported at Rogitama (J. Zuluaga *in litt.* 2006). It is previously known in Colombia only from the Central and West Andes (Krabbe & Schulenberg 2003b). These records are the first for the East Andes. Our sound-recordings are indistinguishable from those made in the Central Andes (Álvarez & Córdoba 2002), but specimens from Yariguíes are darker than those from the Central Andes and Ecuador (including the holotype). Geographical variation in Colombia is complex (e.g. Cuervo *et al.* 2003, Krabbe *et al.* 2006) and requires further investigation. This new East Andes population appears to involve an undescribed subspecies.

HANDSOME FLYCATCHER *Myiophobus pulcher bellus*

M. p. bellus was present at Alto Cantagallos (1; 0) and recently observed and sound-recorded at La Aurora by JEAC. *M. p. bellus* (East and Central Andes of Colombia and eastern Ecuador) is identified by the contrasting breast and underparts, browner

back, more cinnamon wingbars, darker red crown and longer tail compared to nominate *M. p. pulcher* (West Andes and western Ecuador). With two exceptions (BMNH 88.1.1.1249, ICN 29164), specimens of *M. p. bellus* typically have five primaries with paler remiges (from the second outermost inwards) whilst *M. p. pulcher* (and *M. p. oblitus* of Peru) typically have only 3–4 primaries so marked (from the third outermost). At Alto Cantagallos in January, only lone individuals were observed by TMD, whilst at La Aurora in April a (family?) group of four was seen by JEAC perched on horizontal twigs of midstorey small trees and tree ferns. They sallied 3–4 m, occasionally ascending to 6 m and frequently moved their vertical stratification with continuous position interchanges. Such 'fidgety' behaviour is similar to that of *M. p. pulcher* at Tambito, West Andes (TMD). The principal foraging aerial manoeuvre was the sally-hover (Remsen & Robinson 1990), to capture small arthropods below the leaves, with a few sally-glides. One vocal bird at La Aurora was observed on three occasions clinging woodpecker-like from moss-carpeted tree bark to pull at moss then shake it free from a perch, presumably searching for invertebrates. *M. p. bellus* was previously known from just two sites in the East Andes: on the west slope in Cundinamarca, *c.*250 km to the south, and on the east slope in northern Santander (Hilty & Brown 1986, Fjeldså & Krabbe 1990, Ridgely & Tudor 1994).

JEAC sound-recorded *M. p. bellus* making a rapid trill, identical to certain calls given by *M. p. bellus* in eastern Ecuador (Moore & Lysinger 1997). Examples of some such calls do not occur in published recordings of *M. p. pulcher* from Ecuador (Moore *et al.* 1999), but this may reflect lack of sampling. Some calls, such as sequences of falling notes and energetic 'chips', are given by both taxa.

M. p. pulcher and *M. p. bellus* were described by Sclater (1860, 1862) who noted that *M. p. bellus* is 'easily distinguishable [from *M. pulcher*] by its larger size and larger wings', but were lumped by Berlepsch (1905) with little published justification. The two indeed differ somewhat in biometrics (Sclater 1862, Bond 1943). Mensural data from specimens and live birds at Tambito and Yariguíes are as follows (mean ± standard deviation in mm or g, with number of specimens in parentheses): *bellus* wing 58.5 mm ± 3.9 (13), tail 48.6 mm ± 3.1(13), mass 11.3g ± 1.6 (4); *pulcher* wing 52.8 mm ± 2.9 (23); tail 41.1 mm ± 2.9 (20); mass 9.1g ± 0.6 (12). Tail-length (*pulcher* <43 mm <*bellus*) reliably identifies *c.*90% of our sample. Whilst differences between *bellus* and *pulcher* are frequently noted with little comment (Hilty & Brown 1986, Fjeldså & Krabbe 1990, Ridgely & Greenfield 2001), their plumage and biometric differences are not insubstantial within the context of a family in which inter-specific morphological variation is often slight (e.g. *Myiobius*, *Myiarchus*, *Empidonax*). Vocalisations are considered innate in Tyrannidae (Kroodsma 1984) and are worthy of further study in these birds. *M. p. oblitus* of Peru is almost indistinguishable from *M. p. pulcher* in plumage and biometrics, despite its disjunct range (Bond 1943).

Specimens examined.—*M. p. pulcher*: BMNH 88.1.13.857 (type), 88.1.1.1249, 1931.11.23.15, 1938.12.20.38–39, University Museum of Zoology, Cambridge

University, UK (UMZC) 27/Tyr/59/e/1; ICN 29041, 29044, 29164, 29170; *M. p. bellus*: BMNH 88.1.13.859, 88.1.13.861–62 (types), 88.1.1.1245; ICN 27360; Museo de Historia Natural, Universidad del Cauca, Popayán, Colombia (MHNUC) A01860, A01892; Instituto Alexander von Humboldt (IAVH) 2541, 2548, 2551; Museo La Salle, Bogotá (MLS) 5060, 7930. *M. p. oblitus*: BMNH 88.1.13.858.

CLIFF FLYCATCHER *Hirundinea ferruginea sclateri*
Eight observed, video- and sound-recorded below La Luchata and adjacent El Cerro, and two at Bajo Cantagallos (1,200m: JEAC), were all identified as race *sclateri* due to their white crown mottling. At 2,000 m, La Luchata is an unusually high elevation in Colombia (Hilty & Brown 1986), though the species ranges higher elsewhere (Fjeldså & Krabbe 1990). One was also observed on the other side of the río Sogamoso Valley at 1,300 m on 8 April 2004 (JEAC). The most frequently heard call was a high-frequency, rather weak *Pi-weet* or shorter *weet*, whilst other recorded calls involved a *Weeet wi-wi-wi* sometimes extended to *weeet wi-wi-wi-wi-wi*. Not previously reported from the west slope of the East Andes but known from several localities on the east slope (Hilty & Brown 1986, Fjeldså & Krabbe 1990, Salaman *et al.* 2002b).

LEMON-BROWED FLYCATCHER *Conopias cinchoneti*
Common at Montaña Pedro Elías and recently mist-netted at *c.*1,700 m at Bajo Cantagallos (J. C. Luna, C. Turner & M. Sharp, photograph). Although this secondary habitat and forest-edge species must be widespread in the region, it is virtually unknown from the East Andes in Colombia, beyond historic Bogotá records (Hilty & Brown 1986).

WHITE-CAPPED TANAGER *Sericossypha albocristata*
Common at La Aurora, where several were observed daily and sound-recorded, and rare at Alto Cantagallos (JEAC). The frequently heard call is a repeated *pio* as in Ecuador (Krabbe *et al.* 2001) and on the east slope (TMD). The species has also recently been reported from Cachalú (Corredor de Conservación 2006) and Suratá (JEAC). Though known from various sites on the east slope of the East Andes (Hilty & Brown 1986, Isler & Isler 1999, Salaman *et al.* 2002b), there were no published records from the west slope.

LACRIMOSE MOUNTAIN-TANAGER *Anisognathus lacrymosus*
Present at Alto Cantagallos (0; 1†), Lepipuerto (2) and Filo Pamplona (11+3: Fig. 6). Though Hilty & Brown (1986) considered the species to be widespread in the northern East Andes, more recently its range in this region has been considered restricted to the Venezuelan border and Perijá (Fjeldså & Krabbe 1990, Isler & Isler 1999). The Yariguíes population is closest in plumage to the more richly plumaged Central Andean *A. l. olivaceiceps* than greyer headed *A. l. tamae* (northern East Andes and south to Suratá [JEAC]) or *A. l. pallididorsalis* (Perijá). However, Yariguíes birds have a darker, bluer head than *A. l. olivaceiceps* and represent an

undescribed taxon. In addition, species limits should be investigated further as plumage differences between the various northern races are substantial.

WHITE-WINGED TANAGER *Piranga leucoptera*
Several were observed in mixed-species flocks at Alto Honduras (TMD, JEAC), with recent observations at El Talisman (J. C. Luna *in litt.* 2006), Cachalú (Corredor de Conservación 2006) and Tona (JEAC). *P. leucoptera* is known on the west slope of the East Andes from Norte de Santander north and from Cundinamarca south (Hilty & Brown 1986). Our observations close this *c.*350 km gap.

SOOTY GRASSQUIT *Tiaris fuliginosus*
Trapped and photographed in Cerro de la Paz (1,300 m, 1♀) and a female in body moult trapped at La Luchata (0; 1). Recently reported in Santa Marta (Strewe & Navarro 2004), 400 km to the north, but specimens identified as *T. fuliginosus* from near Cerro de la Paz (Borrero & Hernández 1961), the upper Patía Valley (Haffer 1986) and elsewhere in Colombia (Hilty & Brown 1986) are *T. obscura* (Bates 1997). The only valid Colombian specimen was taken by Carriker in the 1960s at 'Portugal, Santander', considered an unknown locality (Bates 1997). There is a Portugal in Santander (see introduction) where several *T. fuliginosus* were recently collected (Avendaño 2005). Whilst not a range extension, confirmation of its presence in the Magdalena Valley in Colombia is notable and our record at 2,000 m (La Luchata) is unusually high. Whilst Strewe & Navarro (2004) recently purported to identify the Santa Marta population to the race *T. f. zuliae*, Bates (1997) contended that the species is best considered monotypic for now.

STRIPE-HEADED BRUSH-FINCH *Buarremon torquatus assimilis*
A pair, clearly showing the head-stripes of this race, was observed well in heavily degraded habitat at Bajo Cantagallos (*c.*1,800 m; TMD, ERB). *B. t. assimilis* was previously known only north to Cundinamarca in the East Andes, 200 km to the south (Hilty & Brown 1986), with specimens from Boyacá. Black-headed Brush-finch *B. t. atricapillus* was recently observed at Cerro de la Paz (JEAC) and is known from historical Bucaramanga records (Hilty & Brown 1986). *B. t. atricapillus* was also recently observed at Portugal at 1,100 m (specimen and sound-recordings: Avendaño 2005). *B. t. atricapillus* ranges from Bucaramanga south to Serranía de las Quinchas (Laverde *et al.* 2005a) and occurs in adjacent lowlands of the Serranía de San Lucas in the Central Andes (Salaman *et al.* 2002a). The two taxa are sympatric on the west slope of the East Andes in Boyacá and Santander, with *B. t. atricapillus* at lower elevations. The proposition that these morphologically distinct taxa are members of the same biological species appears unsupportable, but the status of apparently related Central American taxa creates difficulties. A detailed study of the taxonomy of this complex is underway (Cadena 2006).

Northwards range extensions from Serranía de las Quinchas or Boyacá

The following species have all been recorded on the west slope of the East Andes in Boyacá (Hilty & Brown (1986) or were recently reported from Serranía de las Quinchas, a site subject to relatively intense study in recent years (e.g. Stiles *et al.* 1999, Stiles & Bohórquez 2000, Laverde *et al.* 2005a,b, Quevedo *et al.* 2006a). All represent northward range extensions of 100–150 km on the west slope of the East Andes and many are first departmental records for Santander or second or third localities for the East Andes. Such details are not listed in the texts below, but taxonomic and distributional notes are made for certain species, and some unpublished records from other sites in Santander and elsewhere are mentioned.

VARIABLE/COLOMBIAN CHACHALACA *Ortalis guttata columbiana* Common in lower-elevation second growth and forest-edge throughout. The loud, repeated, hoarse *guacharaca* call was sound-recorded at dawn at Cerro de la Paz (both sites) and La Luchata. One captured locally was photographed near Cerro de la Paz (Donegan & Huertas 2005). *O. g. columbiana* is also present in the main cordillera in Santander (Rodríguez *et al.* 2005). Chestnut-winged Chachalaca *O. garrula* occurs in similar habitat in nearby dptos. Cesar and Bolívar (Salaman & Donegan 2001, Donegan *et al.* 2003) and at Puerto Olaya (DATAves 2006).

BLUE-BILLED CURASSOW *Crax alberti* Historically present, according to locals, in San Vicente de Chucurí, El Carmen, San Juan Bosco and Yarima, but has apparently become locally extinct in many parts of Yariguíes, with no reports more recent than a decade old at most localities. A *Crax* was reported as recently as 2005 at Montaña Pedro Elías (500 m) but was killed for its meat. Pristine lowland forest bordering the south-west Yariguíes Mountains, between Cimitarra and San Juan Bosco, observed on a flight in July 2004 (TMD, BH), may still harbour a small population, but is subject to hunting. The East Andes population once probably extended at least as far north as southern Cesar, where it was also reported as formerly present by older hunters (Donegan *et al.* 2003), and probably through the entire Serranía de Perijá to Santa Marta (Renjifo *et al.* 2002, Quevedo *et al.* 2006b).

COCOI HERON *Ardea cocoi* Lone birds twice observed over Bajo Simacota. Also observed in small numbers along the río Magdalena near Puerto Wilches (Salaman *et al.* 2002a), in southern Cesar (Donegan *et al.* 2003) and at Puerto Olaya (DATAves 2006).

DOUBLE-TOOTHED HAWK *Harpagus bidentatus* At Montaña Pedro Elías (500 m: 0), where observed feeding a nestling in February 2007, and reported by the ISA study (unspecified locality), *per* Fundación Natura (2003).

BICOLOURED HAWK *Accipiter bicolor* An immature, apparently ♂ (195 g), of this uncommon hawk was mist-netted in the understorey at Montaña Pedro Elías

(705 m). It had the eighth primary of each wing in moult, but little body or tail moult. Also present at Suratá (JEAC).

BARRED HAWK *Leucopternis princeps* A pair observed daily at *c.*09.00–10.00 h at El Talisman, Honduras Alto and both sites in Cerro de la Paz. One soared over La Luchata just after dawn. More widespread than currently perceived (Hilty & Brown 1986), e.g. being common at La Judía at 2,000–2,300 m (ERB, JEAC).

BARRED FOREST-FALCON *Micrastur ruficollis interstes* A pale-phase immature trapped at Cerro de la Paz (1; 0), and heard calling at El Talisman, La Aurora and Montaña Pedro Elías (500–750 m). At Montaña Pedro Elías, it was seen following a mixed-species understorey flock including Sooty Ant-tanager *Habia gutturalis* and White-breasted Wood-wren *Henicorhina leucosticta*. The mist-net mortality prey of this species included *Phaethornis guy*, *Mionectes oleagineus*, *Premnoplex brunnescens*, *Leptopogon superciliaris* and *Eucometis penicillata*.

PLUMBEOUS PIGEON *Patagioenas plumbea bogotensis* A *hoo, hu-hooo* song (rarely *hoo-hoo, hu-hooo*) was heard regularly at Montaña Pedro Elías, Cerro de la Paz, Alto Honduras and El Talisman. An overlooked ICN skin is from Cachalú. The typical call was at *c.*0.7 kHz, the first and second notes separated by 0.25 s, the last two by 0.1 s and the second note slurring slightly lower. It involved fewer notes than the rhythmical *Who cooks for you?* on the Pacific slope of the Andes in Cauca (race *chapmani*; TMD) and had the final note longer than birds east of the Andes (race *delicata*). Ruddy Pigeon *P. subvinacea*, giving its typical *What do you know?* call, was sound-recorded at La Luchata, Alto Honduras, El Talisman and La Aurora, at some sites sympatric with *P. plumbea*. Further studies of *P. plumbea* would be welcome, as *bogotensis* and other vocally distinctive taxa may warrant species rank.

LINED QUAIL-DOVE *Geotrygon linearis* Records at Cerro de la Paz (1; 0, at 1,000 m and 1,300 m), Alto Honduras, El Talisman (1) and La Luchata (0; 2). The call was a repeated low hoot given from the forest floor. *G. linearis* was sympatric with Ruddy Quail-dove *G. montana* at 1,000–1,350m m in Cerro de la Paz (3; 1), an unusually low elevation for *G. linearis*. There are also specimens from Charalá and Suaita (ICN).

SPECKLE-FACED PARROT *Pionus tumultuosus* Flocks observed and photographed at Alto Cantagallos and Primavera.

BRONZE-WINGED PARROT *Pionus chalcopterus* Flocks sound-recorded and observed daily at Montaña Pedro Elías, Plan de Álvarez and Honduras Alto. Locally captured birds were photographed in captivity at El Diviso, between El Carmen de Chucurí and Honduras Alto, at Plan de Álvarez and San Juan Bosco.

CRESTED OWL *Lophostrix cristata* Heard at Montaña Pedro Elías (500 m; JEAC) but not higher. Also recorded historically in the Lebrija Valley, 80 km to the north (Hilty & Brown 1986).

LYRE-TAILED NIGHTJAR *Uropsalis lyra* Females observed in forest-edge at El Talisman and La Luchata (TMD). Also recently mist-netted at El Talisman (J. C. Luna; M. Sharp & C. Turner photograph).

CRIMSON-BELLIED WOODPECKER *Campephilus haematogaster* One trapped at Montaña Pedro Elías (750 m), and observed close to a tree trunk, inspecting a hole 3 m high.

WHITE-TIPPED SICKLEBILL *Eutoxeres aquila* Trapped at Montaña Pedro Elías (500 m: 1; 0), Cerro de la Paz (6; 4 at 1,000 m; 11+1; 16+7 at 1,300 m), Alto Honduras (3), Primavera, El Talisman (1; 0) and La Luchata (1). ICN specimens are from Charalá and Suaita.

GREEN-FRONTED LANCEBILL *Doryfera ludoviciae* Observed or trapped at Bajo Cantagallos, El Talisman (2), Filo Pamplona (1), La Luchata (10+1; 4+3), Montaña Pedro Elías (750 m), Plan de Álvarez, and Zapatoca (Fundación Natura 2003) and Cachalú (Corredor de Conservación 2006).

BROWN VIOLETEAR *Colibri delphinae* Fairly common, Cerro de la Paz at 1,300 m (3; 0) and El Talisman (JEAC) with ICN specimens from Charalá and Suaita.

RUFOUS-CRESTED COQUETTE *Lophornis delattrei* Recently at forest border in Cerro de la Paz (1,350 m: 0; 1♂†).

VIOLET-HEADED HUMMINGBIRD *Klais guimeti* Mist-netted at Montaña Pedro Elías (500 m and 750 m: 1; 1†) and Cerro de la Paz (1,300 m: 3; 0). Also reported at Cachalú (Corredor de Conservación 2006).

ANDEAN EMERALD *Amazilia franciae* Present at Cerro de la Paz (1,000 and 1,300 m: 9+2; 3), Bajo Cantagallos, El Talisman and La Luchata (3+1 and sound-recorded).

GREEN-FRONTED BRILLIANT *Heliodoxa jacula* Common at Cerro de la Paz (1,000 m: 11+5; 1,300 m: 19+5, 1†), fairly common at Alto Honduras (4+1; 3+2), rare at Montaña Pedro Elías (750 m: 0; 1), and an adult male seen in an isolated flowering tree below El Talisman (1,500 m). Known until recently from only a handful of localities in Colombia, but mist-netting at premontane forest sites has led to the discovery of many new sites in all three Andean ranges (Stiles *et al.* 1999, Donegan & Dávalos 1999, Salaman *et al.* 2002a,b, Cuervo *et al.* 2003), suggesting this hummingbird was under-recorded in the past.

WHITE-MANTLED BARBET *Capito hypoleucus* This Endangered species was observed and trapped at Alto Honduras (TMD, JEAC: 0; 1), below El Talisman (J. C. Luna *in litt.* 2006), Cerro de la Paz (JEAC at 1,350 m; J. C. Luna *in litt.* 2006) and Bajo Cantagallos (JEAC). Also reported in lowlands below Landázuri (Fundación Natura 2003). At Alto Honduras, first a pair and secondly a group of four were observed feeding on Melastomataceae fruit at mid-levels in forest. These

are the first records within Colombia's national parks network and for Santander (Renjifo *et al.* 2002), although it was thought possibly present in Yariguíes (Laverde *et al.* 2005b). The voice of *C. hypoleucus* is undescribed. The call recorded at Alto Honduras is a low (0.9–1.6 kHz) quiet frog-like *ah*, sometimes repeated 2–3 times at *c.*1-s intervals. Each *ah* lasts *c.*0.05 s and consists of perhaps three rapidly delivered elements (Fig 7).

CRIMSON-RUMPED TOUCANET *Aulacorhynchus haematopygus* Fairly common at Cerro de la Paz (1,300 m: 2; 1), Plan de Álvarez (1,300 m), Alto Honduras (observations and sound-recordings) and El Talisman (1; 0), at some sites syntopic with Emerald Toucanet *A. prasinus*.

STRIPED WOODHAUNTER *Hyloctistes subulatus cordobae* Recently trapped at Alto Honduras (0; 3, 1†).

RUDDY FOLIAGE-GLEANER *Automolus rubiginosus* At Cerro de la Paz (1,000 m: 0; 1♂†)

PARKER'S ANTBIRD *Cercomacra parkeri* Pair observed at El Talisman (TMD) and common at Alto Honduras (6+1; 1† and sound-recordings: photograph in Balchin 2006). At lower elevations, e.g. Plan de Álvarez (500 m: 1), Montaña Pedro Elías and Cerro de la Paz, *C. tyrannina* was present. A colorimeter was used to separate females from Dusky Antbird *C. tyrannina* in describing the species (Graves 1997) but, with experience, field identification is feasible if a good view is obtained of the female's upperparts. At 2,000 m, El Talisman is slightly higher than previous records. Our recordings are similar to those made in the Central Cordillera (Isler & Whitney 2002, Zimmer & Isler 2003), i.e. melodic piping calls rising then falling in frequency, with 3–5 loud, equal-paced notes then a handful delivered more quickly in finale. Notes are pitched at 2.5–3.5 kHz and the first notes given at *c.*4/s. *C. parkeri* is also known from the west slope of the East Andes based on specimens taken near Bucaramanga, Santander (Graves 1997) and more recently at Suaita, Santander (ICN specimen, by F. G. Stiles).

SLATY ANTWREN *Myrmotherula schisticolor* Common in premontane forest on the west slope, at Alto Honduras (6+3, 1†) and El Talisman (3; 1). ICN specimens hail from Suaita.

WHITE-BELLIED ANTPITTA *Grallaria hypoleuca* Common: sound-recordings were made at Alto Honduras, El Talisman, Alto Cantagallos, La Aurora and La Luchata; also reported at Landázuri (Fundación Natura 2003). A dead bird found at La Luchata (1†) had apparently been killed by an internal parasite (large Diptera larva). The call is essentially identical to that in the southernmost East Andes, in Serranía de los Churumbelos, Anorí (TMD pers. obs.) and Ecuador (Moore & Lysinger 1997), a series of three slow whistles, the first lower (*c.*1.8–2.1 kHz) than the others (*c.*1.9–2.2 kHz), with a slightly longer interval between the first and second notes than the second and third.

CHESTNUT-CROWNED GNATEATER *Conopophaga castaneiceps* Sound-recorded at Alto Honduras (confirmed by A. M. Cuervo & N. Krabbe), giving short trills similar to those given in the Central Andes, and recently captured there (0; 2†). Also, recently sound-recorded in mountains to the north-east above Bucaramanga (1,700 m: Avendaño 2005).

SOOTY-HEADED TYRANNULET *Phyllomyias griseiceps* Photographed in forest-edge below Alto Honduras and observed at Bajo Simacota (JEAC).

LESSER ELAENIA *Elaenia chiriquensis* Common in second growth on the east slope around Galán, at 1,100–1,500 m at least, with ICN specimens from Chima and Charalá.

SCALE-CRESTED PYGMY-TYRANT *Lophotriccus pileatus* Fairly widespread elevational range in forest, at Cerro de la Paz (1,300 m, 3; 3+2), Alto Honduras (4, 1†; 1), El Talisman (sound-recordings), Bajo Cantagallos, Alto Cantagallos (heard), Lepipuerto (heard) and La Luchata (1); also Charalá (ICN specimens).

WHITE-THROATED SPADEBILL *Platyrinchus mystaceus* Fairly common at Cerro de la Paz (1,350 m: 0; 3), Alto Honduras (3+1, 1†; 1), El Talisman (0; 1) and Alto Cantagallos (3+1; 1), with ICN specimens from Charalá.

BLACK-TAILED FLYCATCHER *Myiobius atricaudus* Cerro de la Paz (0; 1 at 1,000 m; 1; 0 at 1,300 m), Montaña Pedro Elías (750 m: 0; 1†) and Veléz (ICN specimen).

TROPICAL PEWEE *Contopus cinereus* Observed in scrub over a stream at Cerro de la Paz (1,000 m: TMD). Also mist-netted recently at Aguachica (Donegan *et al.* 2003).

CATTLE TYRANT *Machetornis rixosa* Common in secondary habitats on both slopes of Yariguíes and throughout surrounding Santander, following apparent recent expansions in range reported by Stiles *et al.* (1999), ABO (2000) and Salaman *et al.* (2002a).

RUFOUS-NAPED GREENLET *Hylophilus semibrunneus* Fairly frequent at both sites in Cerro de la Paz (0; 1 at 1,350 m), Alto Honduras and El Talisman.

SCRUB GREENLET *Hylophilus flavipes* Observed at Bajo Simacota and common at San Juan Bosco and Plan de Álvarez (all JEAC). Not previously recorded in the humid region between south Cesar and Boyacá.

STRIPE-THROATED WREN *Thryothorus leucopogon* Observed at Cerro de la Paz (1,000 m) and Bajo Cantagallos (1,300 m) (TMD), these also being unusually high elevations.

PALE-VENTED THRUSH *Turdus obsoletus* Trapped at 1,300 m in Cerro de la Paz (3, 1†; 0) and Montaña Pedro Elías (500 m: 0; 1). The subspecies involved requires elucidation (Stiles *et al.* 1999, Salaman *et al.* 2002a).

GRASS-GREEN TANAGER *Chlorornis riefferii* Common at high-elevation sites, Alto Cantagallos (1; 1), Lepipuerto, Filo Pamplona and La Aurora, and sound-recorded at some of these. Also at Charalá (ICN specimen).

BAY-HEADED TANAGER *Tangara gyrola deleticia* Common in Cerro de la Paz at both sites (1,300 m: 10; 3), Alto Honduras (in mixed canopy flocks in primary forest), El Talisman, Plan de Álvarez (900 m) and Montaña Pedro Elías (500 and 750 m). Also, collected at Albania (Borrero & Hernández 1961) and reported at Landázuri (Fundación Natura 2003).

SCRUB TANAGER *Tangara vitriolina* Fairly common at El Talisman, La Luchata, Plan de Álvarez (900 m), collected at Chima (ICN specimens), reported from Zapatoca (Fundación Natura 2003) and observed elsewhere in forest-edge.

ASHY-THROATED BUSH-TANAGER *Chlorospingus canigularis* At Alto Honduras (1) and El Talisman. Also reported at Rogitama (J. Beckers unpubl.) and Iguaque (Veléz 2006) but such higher elevation localities are more likely to support Common Bush-tanager *C. ophthalmicus* (F. G. Stiles *in litt.* 2006). *C. ophthalmicus*, probably of the race *flavopectus* (Cadena *et al.* submitted), was present at higher elevations of Yariguíes: El Talisman (6, 1†; 0), Alto Cantagallos (7+1; 10), Lepipuerto (1), Filo Pamplona (4, 1†) and La Aurora (0; 2), and has a rather grey head and dark eye, possibly causing confusion.

WHITE-EARED CONEBILL *Conirostrum leucogenys* Observed at Bajo Simacota (JEAC), with unpublished reports from Puerto Olaya, Cimitarra (DATAves 2006).

YELLOW-THROATED BRUSH-FINCH *Atlapetes atrinucha* Trapped at El Talisman (2), where sympatric with *A. albofrenatus albofrenatus* and *A. latinuchus yariguierum*. Remsen & Graves (1995) proposed elevational replacements to be more frequent in the genus, but this pattern appears less strong in forest-edge. Records of *A. atrinucha* also exist from Tona (2,000 m) (Peraza 2002).

BLACK-WINGED SALTATOR *Saltator atripennis caniceps* Present at La Luchata (1†), El Talisman, second growth below Alto Honduras and Bajo Cantagallos. Ridgely & Greenfield (2001) considered *caniceps* to be a synonym of nominate *atripennis*. We agree that *caniceps* does not reach Ecuador, but reject the proposed synonymy. *S. a. caniceps* is restricted to Colombia's East Andes (Meyer de Schauensee 1964). This population is easily distinguished from the nominate of the Central and West Andes south to Ecuador, being on average larger, with a less olive (stronger green) back, paler buff undertail-coverts and considerably more grey (less black) on the head (Fig. 9). Some *caniceps* (including our specimen) have a white crown-stripe, a feature absent on birds in the Central and West Andes. ICN specimen mensural data (average ± standard deviation in mm, with number of specimens in parentheses): *caniceps* wing-chord 106.5 mm ± 1.5 (5), tail 91.8 mm ± 1.8 (5); *atripennis*: wing-chord 98.7 mm ± 3.8 (14), tail 88.5 mm ± 4.6 (13).

GREY-THROATED WARBLER *Basileuterus c. cinereicollis* Fairly common at Alto Honduras (5+2; 1), but not found elsewhere, suggesting a narrow elevational range. Found mostly in treefall gaps and primary forest understorey. Most had fresh plumage, and some were completing body moult in January 2005. Also recorded above Bucaramanga (Avendaño 2005) with race *pallidus* at Agua de la Virgen (Donegan *et al.* 2003). Birds in Yariguíes showed little variation in crown colour, unlike *pallidus* (Donegan *et al.* 2003) and have stronger black crown markings.

BLUE-NAPED CHLOROPHONIA *Chlorophonia cyanea* Present at Cerro de la Paz (1,350 m: JEAC), El Talisman (JEAC) and Bajo Cantagallos (1,700 m: C. Turner & M. Sharp *in litt.* 2006). Also at Agua de la Virgen (Donegan *et al.* 2003) which represents a further range extension.

Range extensions to Yariguíes from the main East Andes

The following are known from the main East Andes (Hilty & Brown 1986, Fjeldså & Krabbe 1990, Ridgely & Tudor 1989, 1994) with records in Boyacá or Cundinamarca, or in the main cordillera in Santander (e.g. Charalá, Iguaque, Rogitama), but were not previously known from the west slope of the Magdalena Valley or Serranía de las Quinchas. Most records involve species of high-elevation forest (>2,000 m). Also included are species considered to be of fragmented or poorly known, but possibly continuous, range in the East Andes, and species we suspect have been recorded elsewhere (but unpublished) due to their common presence elsewhere in the Colombian Andes or habitat use. Records involve range extensions of 80–150 km and some represent new departmental records.

BAND-TAILED GUAN *Penelope argyrotis* Three nestlings captured by a local farmer, at 2,000 m, below La Aurora in April 2006, exhibited the whitish-buff terminal tail-band typical of the nominate race.

ANDEAN GUAN *Penelope montagnii* Present at Alto Cantagallos (sound-recordings and photograph) and Filo Pamplona (sound-recorded). The call was a repeated low-pitched *wak wak wak wak wak wak*… at 1.3–1.7 kHz, given at 4–5 notes/s, recalling the transcription in ABO (2000).

GORGETED WOOD-QUAIL *Odontophorus strophium* The population of this Critically Endangered species in Yariguíes is estimated at *c.*1,800–3,300 individuals and is the largest extant (Turner & Donegan 2006). First found at El Talisman (Donegan *et al.* 2005) and also present at Bajo Cantagallos (to 2,300 m), La Luchata, La Aurora, Filo Pamplona (to 3,100 m), Alto Honduras, Primavera and other unspecified localities (Fundación Natura 2003). Formerly considered restricted to 1,500–2,050 m (Hilty & Brown 1986).

RUSTY-FACED PARROT *Hapalopsittaca amazonina* Flocks observed and sound-recorded at Honduras Alto, Alto Cantagallos, Lepipuerto, Filo Pamplona, Bajo Cantagallos, Primavera and La Aurora (photograph).

WHITE-THROATED SCREECH-OWL *Megascops albogularis* Heard at El Talisman, common at Alto Cantagallos (sound-recorded and photographed) and sound-recorded at La Aurora.

STYGIAN OWL *Asio stygius* Sound-recorded making low, muffled, single short hoots at intervals (as in Krabbe *et al.* 2001), at La Aurora and El Talisman.

STRIPED OWL *Pseudoscops clamator* The typical *wheyoo* call reported by Hilty (2003) was recorded at Montaña Pedro Elías (750 m) after 19.00 h.

COLLARED TROGON *Trogon collaris* Fairly common in Cerro de la Paz (1,000 m, 1; 0 and 1,350 m), El Talisman (sound-recorded) and Alto Honduras (male seen). A San Vicente de Chucurí specimen (ICN) was taken by R. Ardila in 1983. *T. collaris* is known from the East Andes only north to Cundinamarca on the west slope (Hilty & Brown 1986), 300 km to the south, but specimens exist from Soatá and Charalá (ICN). Masked Trogon *T. personatus* was observed and sound-recorded at Cerro de la Paz (1,300 m), El Talisman, Alto Cantagallos, Filo Pamplona, La Aurora (2) and La Luchata, and was sometimes sympatric with *T. collaris*.

BAND-WINGED NIGHTJAR *Caprimulgus longirostris* Trapped at Filo Pamplona (1†) and heard at Alto Cantagallos (JEAC).

LAZULINE SABREWING *Campylopterus falcatus* Trapped at La Luchata (3; 1), La Aurora (0; 1) and El Talisman (0; 3), showing intriguing presence/absence patterns perhaps indicative of seasonal altitudinal movements.

CHESTNUT-BELLIED HUMMINGBIRD *Amazilia castaneiventris* Trapped in second growth below El Talisman in 2005 (J. C. Luna *in litt.* 2006). Considered Critically Endangered (BirdLife International 2004) and known from only a handful of sites, all in Boyacá and Santander (Renjifo *et al.* 2002, Chavez & Cortés 2006), making this new site of conservation import.

MOUNTAIN VELVETBREAST *Lafresnaya lafresnayi* At La Aurora (0; 2) near forest-edge and treefall gaps.

BLACK INCA *Coeligena prunellei* One of the commonest species in lower montane forest on both slopes, at Alto Honduras (3), El Talisman (16+1; 10+1), La Luchata (8+4, 2†), Bajo Cantagallos (observed at 1,700 m) and Zapatoca (Fundación Natura 2003). This threatened species was replaced by the more widespread Collared Inca *C. torquata* in forest above 2,400 m at Alto Cantagallos (9, 2†), Lepipuerto (2) and La Aurora (10+1, 1†). *C. prunellei* is endemic to the west slope of Colombia's East Andes, being known from only a handful of sites (e.g. Renjifo *et al.* 2002, BirdLife International 2004, Daza & Villamarín 2006), the closest at Cachalú (Renjifo *et al.* 2002), where it is also locally common (C. D.

Cadena *in litt.* 2006). Only one of *C. prunellei* or *C. torquata* was recorded at any of our primary forest sites, but their elevational replacement is less clear-cut in secondary habitats and forest-edge. We observed *C. torquata* at 2,100 m in forest-edge at El Cerro, just above La Luchata (*c.*300 m distant), and *C. prunellei* was present below La Aurora, at *c.*2,550 m, feeding on the same *Cavendishia* (Ericaceae) flowers as it was observed feeding on at El Talisman on the west slope. Moult in *C. prunellei* appears to occur in the late and early year. At Honduras Alto and El Talisman, almost all were in moult in January and November. At La Luchata, we found individuals completing a moult sequence in April, whilst in June at the same site none that was trapped was in moult.

GOLDEN-BELLIED STARFRONTLET *Coeligena bonapartei bonapartei* Fairly common at Filo Pamplona (4). Hilty & Brown (1986) reported this taxon only from Cundinamarca and Boyacá, the closest site being 150 km to the south. However, it is more widespread, being present at Iguaque (L. Rosselli & F. G. Stiles *in litt.* 2006) and Rogitama (R. Chavarro *in litt.* 2006). Birds in Yariguíes are closer to the nominate race than *C. b. consita* of Perijá.

AMETHYST-THROATED SUNANGEL *Heliangelus amethysticollis clarisse* Common at higher elevations, at Alto Cantagallos (7; 4), Lepipuerto (20+1, 1†), Filo Pamplona (3) and La Aurora (0; 5+2). Also photographed at Rogitama (R. Chavarro *in litt.* 2006).

PURPLE-BACKED THORNBILL *Ramphomicron microrhynchum* Trapped at Filo Pamplona (1).

LONG-TAILED SYLPH *Aglaiocercus kingi kingi* Males observed fairly frequently at El Talisman (0; 1), and La Aurora (0; 3♂), Alto Cantagallos (1♀; 1♂) and Alto Honduras (1♂).

WEDGE-BILLED HUMMINGBIRD *Schistes geoffroyi geoffroyi* Trapped or observed at Alto Honduras (2+2; 2), Bajo Cantagallos, Primavera, El Talisman (0; 1) and La Aurora (0; 2, 1†).

WHITE-BELLIED WOODSTAR *Chaetocercus mulsant* Observed at El Talisman (TMD), where a female was trapped and photographed in 2006 (J. C. Luna, M. Sharp & C. Turner *in litt.* 2006) and Alto Cantagallos (JEAC). Also, unpublished photographs from Rogitama (J. Becker; R. Chavarra & J. Zuluaga *in litt.* 2006).

BLACK-BILLED MOUNTAIN-TOUCAN *Andigena nigrirostris* Common at La Aurora around several fruiting trees and heard once distantly above Alto Cantagallos (JEAC). A Near-Threatened species, confirmation of its presence in the new national park is welcome.

GOLDEN-OLIVE WOODPECKER *Piculus rubiginosus* Heard recently at Alto Honduras, El Talisman and Alto Cantagallos (JEAC).

WHITE-CHINNED THISTLETAIL *Schizoeaca fuliginosa* Common at Filo Pamplona (4+1; Fig. 7). The subspecies involved is yet to be determined.

RUFOUS SPINETAIL *Synallaxis unirufa* Common in the highest elevations of Yariguíes, at Alto Cantagallos (3; 3), Lepipuerto (1) and Filo Pamplona (3). An undescribed subspecies is involved, more rufous than other East Andean populations.

WHITE-BROWED SPINETAIL *Hellmayrea gularis gularis* Captured at Lepipuerto (2, 1†). The Yariguíes population is of the nominate form, with brownish underparts, the specimen being a juvenile indistinguishable from juvenile *H. g. gularis* at ICN from elsewhere in the Colombian Andes as far south as Nariño.

RUSTY-WINGED BARBTAIL *Premnornis guttuligera* Fairly common in montane forest at El Talisman (2), Alto Cantagallos (1; 3) and La Aurora (1; 3). The call was sound-recorded, a sharp, high-pitched 0.1 s *tsip* falling rapidly in frequency, from *c.*9.5 to *c.*4.5 kHz, as in Ecuador (Moore *et al.* 1999).

SPOTTED BARBTAIL *Premnoplex brunnescens* Fairly common at Alto Honduras (2; 2), El Talisman (1), Alto Cantagallos (seen and sound-recorded; 2), Filo Pamplona, La Aurora (5+1, 1†; 4+3) and La Luchata (5+1; 1+3). Calls we recorded are similar to those in Ecuador (Moore *et al.* 1999).

PEARLED TREERUNNER *Margarornis squamiger* Trapped at Alto Cantagallos (3; 1), Filo Pamplona (1) and La Aurora (1; 1), and observed at El Talisman (JEAC).

STRIPED TREEHUNTER *Thripadectes holostictus* Trapped at Alto Honduras (1, at 1,500 m an unusually low elevation for Colombia). Replaced at higher elevations by *T. flammulatus*.

STREAK-CAPPED TREEHUNTER *Thripadectes virgaticeps* Recently captured at Alto Honduras (0; 1 ♂†). Also at Suiata (F. G. Stiles in litt. 2007).

FLAMMULATED TREEHUNTER *Thripadectes flammulatus* Trapped at Alto Cantagallos (1).

STREAKED XENOPS *Xenops rutilans* Sound-recorded at La Aurora.

TYRANNINE WOODCREEPER *Dendrocincla tyrannina* Seen at La Aurora, tape-recorded below Filo Pamplona (JEAC) and heard at Alto Honduras.

BROWN-BILLED SCYTHEBILL *Campylorhamphus pusillus* Trapped on both slopes, at Alto Honduras (1), El Talisman (1; 0), Alto Cantagallos (0; 1) and La Aurora (1), and sound-recorded making similar vocalisations to those in Moore *et al.* (1999) from Ecuador. Published records from the west slope of the East Andes come only from Perijá, adjacent to the Sierra Nevada de Santa Marta, 400 km to the north. Also known from various sites on the east slope of the East Andes (Hilty & Brown 1986, Salaman *et al.* 2002b). Other sites on the west slope include mountains north-east of Bucaramanga (07°14'N, 73°05'W; 1,700 m: Avendaño 2005), Suaita

(F. G. Stiles *in litt.* 2006) and Charalá (ICN), and various sites in Cundinamarca including laguna de Pedro Palo (ABO 2000; ICN specimens). *C. trochilirostris* replaces this species in Yariguíes, at lower elevations (e.g. Montaña Pedro Elías: 0; 1†) and in bamboo-dominated secondary habitats at similar elevations.

UNIFORM ANTSHRIKE *Thamnophilus unicolor* Present on both slopes, at Alto Honduras (1; 1), El Talisman and La Luchata (5+6, 1†; 1†). Published records exist from the west slope of the East Andes only north to Cundinamarca (Hilty & Brown 1986), 250 km to the south, but there are specimens from Charalá (ICN) and records at Rogitama (R. Chavarro & J. Zuluaga *in litt.* 2006). Found in scarred primary forest and forest-edge in premontane and lower montane cloud forest. *T. unicolor* appears rather similar in its male and female plumages, bill structure, bill- and wing-lengths, mass and habitat requirements to montane north-Andean *Dysithamnus occidentalis* and *D. leucostictus*. We do not doubt that these latter taxa are more closely related to *D. mentalis* than *Thamnomanes*, as noted by Whitney (1992), but further investigation is warranted.

MATORRAL TAPACULO *Scytalopus griseicollis* Common in ridgetop, treeline and *páramo* habitat at Alto Cantagallos (0; 1†), Lepipuerto and Filo Pamplona (2†), being sound-recorded many times. The Yariguíes population appears to differ from nominate *S. griseicollis* of the main East Andes by its darker breast, belly, mantle and tail, on average longer tail and small vocal differences. An undescribed subspecies is involved (Donegan & Avendaño ms).

ASHY-HEADED TYRANNULET *Phyllomyias cinereiceps* The same individual trapped twice, almost two years apart at Alto Cantagallos (1; 1), moulting its tail and primaries in November 2006. Known from just two sites in the East Andes (Hilty & Brown 1986), near Bucaramanga and Bogotá.

WHITE-TAILED TYRANNULET *Mecocerculus poecilocercus* Observed in mixed-species flocks below Filo Pamplona (*c.*3,100 m: TMD) and at Alto Cantagallos (JEAC).

RUFOUS-HEADED PYGMY-TYRANT *Pseudotriccus ruficeps* Fairly common at Alto Cantagallos (2; 2+1), Lepipuerto (1) and La Aurora (2). In the East Andes reported previously only from the east slope (Salaman *et al.* 2002b) and recently north of Bucaramanga (Avendaño 2005).

STREAK-NECKED FLYCATCHER *Mionectes striaticollis columbianus* Fairly common at El Talisman (4; 1), Alto Cantagallos (1†) and La Aurora (2; 0). Replaced at lower elevations by *M. olivaceus*, at Cerro de la Paz (1,300 m: 12+2, 1†; 13+7), Alto Honduras (12) and La Luchata (20). In Cerro de la Paz, Ochre-bellied Flycatcher *M. oleagineus* (1,000 m: 24+6, 1†; 9 and 1,300 m: sound-recorded; 4) was also present. *M. striaticollis* was unknown on the west slope of the East Andes north of Cundinamarca, but has been confirmed along almost the entire east slope (Salaman *et al.* 2002b) and observed at Rogitama (J. Beckers; R. Chavarro *in litt.*

2006). The lack of records in Serranía de las Quinchas (Stiles *et al.* 1999, Stiles & Bohórquez 2000, Laverde *et al.* 2005a, Quevedo *et al.* 2006a) may be due to the relatively high elevation to which *M. olivaceus* extends there.

RUFOUS-BREASTED FLYCATCHER *Leptopogon rufipectus* Fairly common at El Talisman (1), La Aurora (1+1; 2+1†) and Alto Cantagallos (0; 1†). Though Hilty & Brown (1986) only noted a handful of East Andean localities, it is widespread at montane forest sites, e.g. at Chicaque (TMD, BH) and on the east slope at Pajarito and Serranía de los Churumbelos (ICN specimen).

ORNATE FLYCATCHER *Myiotriccus ornatus* Common, at Cerro de la Paz (1,300 m: 4+1; 2+1), Alto Honduras (7+1), El Talisman (1; 1†) and Alto Cantagallos (1).

STREAK-THROATED BUSH-TYRANT *Myiotheretes striaticollis* One seen and video recorded at close quarters at La Luchata (TMD, JEAC). Also at Suratá (Avendaño 2005). Although very few localities are noted in the East Andes by Hilty & Brown (1986), the species is sometimes present in degraded habitats and is probably widespread.

SMOKY BUSH-TYRANT *Myiotheretes fumigatus* Flock of *c.*8 seen at Lepipuerto and mist-netted at Filo Pamplona (1). Also present at Iguaque (C. D. Cadena *in litt.* 2006) and Suratá (Avendaño 2005). It is probably more widespread in remaining high-elevation forests in the East Andes, though published records exist only from Bogotá and Bucaramanga (Hilty & Brown 1986).

YELLOW-BELLIED CHAT-TYRANT *Ochthoeca diadema* Common in montane forest at Alto Cantagallos (5; 2+1), Lepipuerto (1+1), Filo Pamplona (1 in bamboo forest at 3,100 m) and La Aurora (0; 1).

GOLDEN-CROWNED FLYCATCHER *Myiodynastes chrysocephalus* Fairly common at Cerro de la Paz (1,300 m), Alto Honduras, El Talisman and La Luchata, filling an apparently large gap in its range, with published records only from Bogotá and Bucaramanga (Hilty & Brown 1986). However, there is a specimen from Charalá (ICN) and sight records at Santa María, Mámbita (F. G. Stiles *in litt.* 2006) and laguna de Pedro Palo (J. Beckers *in litt.* 2006), making us suspect that it is widespread.

DUSKY PIHA *Lipaugus fuscocinereus* Common and sound-recorded in montane forest on both slopes, at El Talisman, Alto Cantagallos, Filo Pamplona and La Aurora.

GOLDEN-WINGED MANAKIN *Masius chrysopterus* Common in lower montane forest in Yariguíes including at Alto Honduras (8+3, 1†), Bajo Cantagallos and El Talisman (3: Fig. 8). The male specimen agrees broadly with those from Charalá at ICN, which are closest to the *M. c. pax* group, but possibly represent an undescribed race (Salaman *et al.* 2002b).

BARRED BECARD *Pachyramphus versicolor* At Alto Cantagallos (TMD observation; 1) and a male in a mixed-species flock at La Aurora (TMD).

BLACK-BILLED PEPPERSHRIKE *Cyclarhis nigrirostris* Fairly common at Alto Honduras (sound-recorded) and El Talisman.

SHARPE'S WREN *Cinnycerthia olivascens* Common at Alto Cantagallos (5; 7†), Lepipuerto (4), Filo Pamplona and La Aurora (recordings; 2†). *C. olivascens* is known in the East Andes only north to Boyacá (Hilty & Brown 1986), 150 km to the south, though Fjeldså & Krabbe (1990) suggested a more widespread distribution and there is an ICN specimen from Cachalú. The Yariguíes population represents an undescribed subspecies, distinguishable from: (i) *C. o. olivascens* of the Central and West Andes, (ii) more rufous populations of the southern Central and East Andes (perhaps *C. o. bogotensis*: Brumfield & Remsen 1996) and (iii) less rufous Santander and Cundinamarca populations (which may alternatively be *C. o. bogotensis*: Brumfield & Remsen 1996), by their darker head and paler throat (Avendaño & Donegan ms).

PALE-EYED THRUSH *Turdus leucops* Four males and a female trapped at La Luchata (0; 6+1, 2† both with enlarged gonads), and recently photographed at Primavera (C. Turner, M. Sharp & J. C. Luna *in litt.* 2006). *T. leucops* has been sound-recorded at Cachalú (C. D. Cadena *in litt.* 2006) but is apparently absent elsewhere on the west slope of the East Andes (Hilty & Brown 1986). The lack of records in June–July 2005 at La Luchata suggests seasonal (altitudinal?) movements, as in some other Neotropical thrushes such as Black Solitaire *Entomodestes coracinus* (Donegan & Dávalos 1999), or sensitivity to disturbance by a larger expedition team.

BROWN-BELLIED SWALLOW *Notiochelidon murina* Common over *páramo* at Lepipuerto on the west slope. Interestingly (given this is typically a species of farmland and urban areas), it was found in pristine habitat tens of km from human settlements or modified habitat. Strangely, *N. murina* was not present at similar habitat and elevation at Filo Pamplona, where Blue-and-white Swallow *Pygochelidon cyanoleuca* was common (again, interestingly, in remote, pristine habitat). These species may originally have been *páramo* specialists before range expansions following human landscape modification.

NICEFORO'S WREN *Thryothorus nicefori* Sound-recorded and observed at vereda El Alto, near Los Anacos (*c.*1,300 m) and finca El Rubí, vereda San Ignacio (*c.*1,540 m), above Galán, en route to La Luchata and La Aurora, respectively. Also observed by JEAC at the first locality on a previous visit and recently mist-netted (March 2007) in the Chucuri Valley near San Vicente (J. C. Luna; photograph). Not previously reported west of the río Suárez, though known from San Gil, just 30 km away (Renjifo *et al.* 2002). Although a small range extension, it is important given the tiny range and the species' Critically Endangered status (BirdLife International 2004). Vocalisations comprise combinations of melodic but flat *weee* and *oo* notes,

e.g. *weeee oo oo oo wee*, similar to Rufous-and-white Wren *T. rufalbus*. The *wee* notes are typically of 0.3–0.6 s duration at *c.*1.5–2.3 kHz; the *oo*'s each at 0.8–1.2 kHz and generally shorter (0.1–0.2 s). The species also makes various low-pitched and abrupt churrs. A detailed study of the voices and molecular biology of *T. nicefori* and *T. rufalbus* is in preparation (J. Parra *in litt.* 2006).

BLACK-EARED HEMISPINGUS *Hemispingus melanotis* At Alto Cantagallos (2; 1) and La Aurora (1), contrasting with the greater abundance and wider elevational range of *H. frontalis* (at 2,000–3,000 m on both slopes). *H. melanotis* was known previously in the East Andes only above Bucaramanga and around Bogotá (Hilty & Brown 1986, ABO 2000), but has also been seen at La Judía (ERB, JEAC) and Chicaque (C. D. Cadena *in litt.* 2006), and collected at Rondón (Santa Isabel) in Boyacá (ICN), making us suspect it is more widespread in suitable habitat.

GOLDEN-CROWNED TANAGER *Iridosornis rufivertex* Common at Lepipuerto (1) and Filo Pamplona (5+3). Reportedly scarce in the East Andes (Hilty & Brown 1986), but perhaps common in remaining high-elevation habitats elsewhere in Santander.

SAFFRON-CROWNED TANAGER *Tangara xanthocephala* Observed at El Talisman and La Luchata (TMD), and also reported at Zapatoca (Fundación Natura 2003). Previously known from the west slope of the East Andes only in the Serranía de Perijá and north to Cundinamarca, *c.*350 km apart (Hilty & Brown 1986). This relatively widespread forest-edge species is probably continuously distributed in the East Andes as it occurs at various sites in the main Andean range in Santander and Cundinamarca (JEAC, ERB).

FLAME-FACED TANAGER *Tangara parzudakii* Observed at various sites, including Alto Honduras (1, immature), El Talisman (where nesting in November 2006), Primavera (where an ICN specimen was taken by R. Ardila in 1984), Alto Cantagallos (0; 1), La Aurora and La Luchata, in secondary forest, scrub and primary forest treefall gaps. *T. parzudakii* was not previously known north of Cundinamarca in the East Andes (Hilty & Brown 1986), *c.*250 km to the south, although there is a population in Mérida, Venezuela (Isler & Isler 1999). Identified as the distinctive nominate form, due to the paler forecrown, compared to *lunigera* of the West Andes. Records at La Aurora (2,700 m) are unusually high.

GOLDEN-NAPED TANAGER *Tangara ruficervix* One observed recently in a mixed-species flock at El Talisman (JEAC). Few records on either slope of the East Andes north of Cundinamarca (Hilty & Brown 1986, Salaman *et al.* 2002b), but recently found at Pedro Palo (J. Beckers *in litt.* 2006) and there is a specimen from an unspecified locality in Santender (LSUMZ 61895).

METALLIC-GREEN TANAGER *Tangara labradorides* Observed at forest-edge in mixed-species flocks and trapped at some sites: La Aurora (2,700 m), La Luchata (JEAC), Alto Honduras (JEAC), El Talisman (0; 1†) and Alto Cantagallos (0; 1).

The former represents an unusually high elevation in Colombia. Though only a few published records and specimens exist from the East Andes north of Cundinamarca (Hilty & Brown (1986), the species is more widespread. In Santander, it has been recorded at Reserva El Diviso, above Bucaramanga (Asociación Santanderana de Ornitología unpubl.), Cachalú (Corredor de Conservación 2006) and Suaita (F. G. Stiles *in litt.* 2006), for example.

BLACK-CAPPED TANAGER *Tangara heinei* Fairly common at El Talisman, Bajo Cantagallos and La Luchata, generally in premontane second growth and forest-edge. Previously known in the East Andes only from Serranía de Perijá and around Bogotá, 250 km south of El Talisman, but it is also common at 1,700 m above Bucaramanga and in Parque Nacional Chicamocha, Aratoca, at similar elevations (JEAC), with numerous specimens (ICN) from Charalá, Suaita (Santander), various sites in Cundinamarca, Boyacá and from Pamplona (Norte de Santander), and observations at sites including Rogitama (J. Zuluaga & R. Chavarro *in litt.* 2006) and laguna de Pedro Palo (J. Beckers *in litt.* 2006). These suggest the species is widespread in the East Andes.

HEPATIC TANAGER *Piranga flava* Observed in second growth near La Luchata in July (TMD, JEAC), and recently recorded in La Judía at 1,400–1,700 m (ERB, JEAC) and Parque Nacional Chicamocha, at 1,700 m (JEAC). Not reported in the East Andes south of Norte de Santander, 100 km north of La Luchata (Hilty & Brown 1986, Isler & Isler 1999). The race *P. f. faceta*, considered present in this region (Isler & Isler 1999, Salaman *et al.* 2001), is known from few sites and specimens in Colombia.

PLUSHCAP *Catamblyrhynchus diadema* Trapped, bamboo forest below Filo Pamplona (1).

DULL-COLOURED GRASSQUIT *Tiaris obscura* Fairly common in secondary habitats of the west slope. Borrero & Hernández's (1961) records of *T. fuliginosa* from lowlands adjacent to Yariguíes refer to this species (Bates 1997).

SLATY FINCH *Haplospiza rustica* At La Luchata (0; 1♂†) and Alto Cantagallos (0; 1♂). Probably found sporadically in suitable habitat throughout the East Andes, with records in Norte de Santander (Rodríguez 1985), La Judía (JEAC), Otanche and Santa María, Boyacá (ICN specimens), and in Cundinamarca, on the east slope (Salaman *et al.* 2002b). Apparently a wanderer, being unpredictable in its occurrence (Salaman *et al.* 2002b).

BLACK-AND-WHITE SEEDEATER *Sporophila luctuosa* Observed on the west slope around San Vicente and El Carmen, and reported at Zapatoca (Fundación Natura 2003).

CITRINE WARBLER *Basileuterus luteoviridis luteoviridis* Fairly common at Lepipuerto (1†, sound-recorded) and uncommon at La Aurora (1†). The most

frequently heard call was a *c.*1.3-s chattering series of *chi* notes at *c.*3–10 kHz, increasing in frequency and volume towards the end.

BLACK-CRESTED WARBLER *Basileuterus nigrocristatus* Observed in bamboo forest below Filo Pamplona (JEAC). Few records, but the species is found at other sites including Rogitama (J. Beckers; J. Zuluaga & R. Chavarro *in litt.* 2006) and Suratá (JEAC).

RUSSET-CROWNED WARBLER *Basileuterus coronatus* Common in premontane and montane forest at El Talisman (3; 2), Alto Cantagallos (2; 2), La Aurora (4; 2+2, 1†) and La Luchata (3+4; 5+9). Though Hilty & Brown (1986) noted no records north of Boyacá, it has been recorded at various sites in the main cordillera in Santander (JEAC, ERB) including Suratá (JEAC) and near the Boyacá/Santander border in Rogitama (J. Becker; R. Chavarro & J. Zuluaga *in litt.* 2006).

RUSSET-BACKED OROPENDOLA *Psarocolius angustifrons sincipitalis* Flocks of up to 30 at El Talisman (down to *c.*1,700 m), Primavera (M. Sharp photographs), Bajo Cantagallos, Plan de Álvarez (900–1,350 m) and below La Aurora (*c.*2,100 m), and sound-recorded at Alto Honduras. Also reported at Landázuri (Fundación Natura 2003). All observed sufficiently well were of the race *sincipitalis*, due to their strong yellow eyebrow. This form is restricted to the East Andes and is considered poorly known (Jaramillo & Burke 1999). A broad repertoire of calls is given by *P. a. sincipitalis*, including loud sequences rising rapidly in frequency, and low unmusical grunts not dissimilar to those of the montane group elsewhere in Colombia.

SCARLET-RUMPED CACIQUE *Cacicus uropygialis* Up to 15 at El Talisman (TMD), Bajo Cantagallos (M. Sharp) and Alto Cantagallos (JEAC); also reported at Landázuri (Fundación Natura 2003) and present in the main cordillera at La Judía (ERB, JEAC), but not previously reported north of Cundinamarca on the west slope of the East Andes (Hilty & Brown 1986, Renjifo *et al.* 2002).

MOUNTAIN CACIQUE *Cacicus chrysonotus* Common at El Talisman, Alto Cantagallos and La Aurora (0; 1), where noisy groups were sound-recorded in mixed flocks with Green Jay *Cyanocorax yncas* and Mountain Grackle *Macroagelaius subalaris*. The most common call involved 0.15-s unmusical *dup* or *chip* notes given singly or in rapid series' of up to five. Each note includes multiple overtones or principal notes (e.g. at 2.5, 3.7, 5.0, 6.0 and 7.2 kHz), with those in mid-range (e.g. 5.0 kHz) sometimes lasting slightly longer and being stronger, or sometimes given in sequences of varying frequency. Replaced at lower elevations (e.g. Bajo Simacota) by Yellow-rumped Cacique *C. cela*.

YELLOW-BILLED CACIQUE *Amblycercus holosericeus australis* One observed (TMD) and sound-recorded in tall reeds at Lepipuerto. One call recorded was *chu chu weeeee chrrrrrrrrrrrrrrrrrrrrr* (Fig. 3). Another call was a repeated

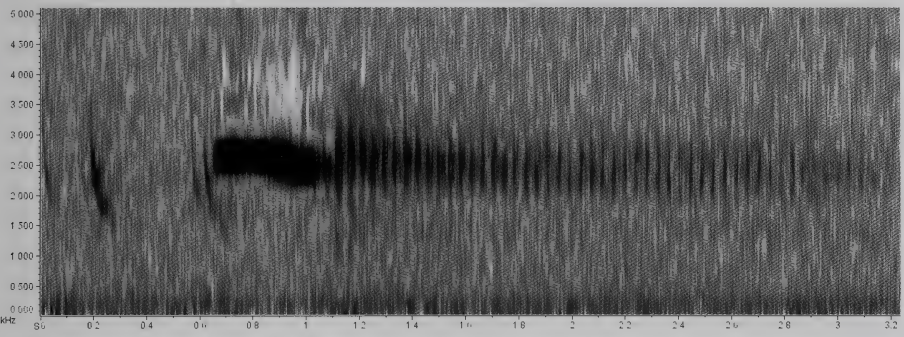

Figure 3. Sonogram of song of Yellow-billed Cacique *Amblycercus holosericeus australis*, Lepipuerto, Serranía de los Yariguíes, January 2005. Recording by TMD.

waak waak waak waak waak . . . comprising notes at 1.3–2.1 kHz, repeated at *c.*4/s. The species has a wide repertoire (Jaramillo & Burke 1999), but the former calls are somewhat different from those reported for the nominate in Peru (Jaramillo & Burke 1999, Fjeldså & Krabbe 1990), though similar to those reported in the Sabana de Bogotá (ABO 2000). A detailed vocal study is warranted.

MOUNTAIN GRACKLE *Macroagelaius subalaris* Rare at Alto Cantagallos (BH), eight observed recently above El Talisman (JEAC) and very common at La Aurora. Also reported near Zapatoca (Fundación Natura 2003), with two old specimens apparently from 2,750 m in San Vicente de Chucurí (Renjifo *et al.* 2002). Frequently flocked with Mountain Cacique *Cacicus chrysonotus* and Green Jay *Cyanocorax yncas*. At La Aurora, flocks of up to 30 observed daily and sound-recorded. The most common contact calls were short (<0.05 s) monotonous *dup* noises at 2.8–4.0 kHz. *M. subalaris*, like Gorgeted Wood-quail *O. strophium*, was until recently considered amongst the most threatened birds in the world, being known only from a few montane forests in Colombia's East Andes, but it has been observed recently at several new sites (Cadena *et al.* 2002, Rodriguez *et al.* 2005, Velásquez *et al.* 2005, Cortés *et al.* 2006). *M. subalaris* appears to have a smaller (higher) elevational range and thus a smaller geographical range than *O. strophium* and may be subject to higher threat levels. We conservatively estimate the *M. subalaris* population in Yariguíes to be at least 1,400 individuals. However, a more detailed survey is needed.

PÁRAMO SEEDEATER *Catamenia homochroa* At Filo Pamplona (3). In the East Andes reported only from high-elevation sites in Boyacá and Cundinamarca, 150 km to the south, and from Perijá (Hilty & Brown 1986).

YELLOW-BELLIED SISKIN *Carduelis xanthogastra* At El Talisman (sound-recordings) and observed in forest and second growth below Alto Honduras. Supposedly little known in the East Andes, where reported from Norte de Santander with old records around Bogotá (Hilty & Brown 1986), but also found at Rogitama

(J. Beckers; R. Chavarro *in litt.* 2006) and la Plazuela, Tona (2,200 m: JEAC; G. Moreno *in litt.* 2006). Common in premontane secondary habitats and is probably continuously distributed in the East Andes.

ORANGE-BELLIED EUPHONIA *Euphonia xanthogaster* Fairly common at Cerro de la Paz at 1,300 m (3; 3†), Alto Honduras (3; 10+4), El Talisman and La Luchata (6+3), and also observed at Agua de la Virgen (Donegan *et al.* 2003). *E. xanthogaster* ranges in the Magdalena lowlands to Puerto Olaya (E. Constantino *in litt.* 2006). Calls recorded in Yariguíes included *zhurr*, *zhurr-dit* and *zhurr-dit-dit*, as described by Isler & Isler (1999), the *zhurr* being 0.1 s long at *c.*3.3–3.7 kHz, and the *dit* comprising a falling then rising whistle at 4.0–6.0 kHz.

Unusual elevational records

Several additional unusual elevational records were noted on the basis of a non-exhaustive search of major references (Hilty & Brown 1986, Ridgely & Tudor 1989, 1994, Fjeldså & Krabbe 1990, Parker *et al.* 1996, Ridgely & Greenfield 2001, Hilty 2003) and certain publications containing multiple new elevational records for Colombia (Donegan & Dávalos 1999, Salaman *et al.* 1999, Stiles *et al.* 1999, ABO 2000, Renjifo *et al.* 2002, Salaman *et al.* 2002a,b, Cuervo *et al.* 2003, Strewe & Navarro 2004, Krabbe *et al.* 2006). None of these records is claimed as 'new' due to the sporadic nature of publication of new elevational records and the many unpublished records. For each species, the lowest and highest elevational records are specified in [], together with the apparently extralimital or unusual elevation at which we recorded it. All records relate to trapped and photographed birds unless initials are noted, in which case a field observation is involved. Records for Colombia are from Hilty & Brown (1986); for Ecuador, Ridgely & Greenfield (2001); for Venezuela, Hilty (2003); and for elsewhere, Fjeldså & Krabbe (1990), unless otherwise stated. Only elevational 'extensions' of 200 m+ are presented and only records at extralimital elevational sites detailed. We intend to fully detail elevational ranges of all species we have recorded on both slopes of Yariguíes in a future publication.

Rusty-faced Parrot *Hapalopsittaca amazonina* [2,000–3,000 m] 1,500 m (at Honduras Alto, Primavera and Bajo Cantagallos) and to the species' upper elevational limit at Lepipuerto (TMD). **Rufous-breasted Hermit** *Glaucis hirsutus* [To 1,100 m] 1,300 m (Cerro de la Paz). **Band-tailed Barbthroat** *Threnetes ruckeri* [To 1,050 m] 1,300 m (Cerro de la Paz). **Green-fronted Lancebill** *Doryfera ludovicae* [1,400–2,850 m; once to 3,150 m in West Andes: Krabbe *et al.* 2006]. To 3,200 m (Filo Pamplona) and down to 500 m (Montaña Pedro Elías and Plan de Álvarez: JEAC). **Green Violetear** *Colibri thalassinus* [600–3,000 m] 3,200 m (Filo Pamplona). **Speckled Hummingbird** *Adelomyia melanogenys* [1,000–2,500 m; 3,400 m Ecuador] 2,900 m (Lepipuerto). **Buff-tailed Coronet** *Boissonneaua flavescens* [1,400–2,800 m; to 3,600 or 4,200 m in Venezuela and 3,150 m in West

Andes: Krabbe *et al.* 2006] 3,200 m (Filo Pamplona). **White-necked Puffbird** *Notharchus hyperrynchus* [To 500 m; to 1,200 m in Venezuela and 700 m in Central Andes of Colombia: Salaman *et al.* 2002a] 1,200 m (Cerro de la Paz: BH). **Beautiful Woodpecker** *Melanerpes pulcher* [To 500 m] To 1,350 m (Cerro de la Paz at 1,000 m: TMD, and Plan de Álvarez at 1,000–1,350 m: JEAC). **Stripe-breasted Spinetail** *Synallaxis cinnamomea* [900–2,100 m] 3,100 m (sound-recorded below Filo Pamplona: JEAC). **Rusty-winged Barbtail** *Premnornis guttuligera* [1,600–2,500 m; to 2,900 m in Venezuela] 2,700 m (La Aurora). **Spotted Barbtail** *Premnoplex brunnescens* [1,300–2,600 m; or 2,750 m: Fjeldså & Krabbe 1990] 3,100 m (below Filo Pamplona: TMD & JEAC). **Montane Foliage-gleaner** *Anabacerthia striaticollis* [1,000–2,400 m; 2,600 m Venezuela] 2,700 m (La Aurora: TMD & JEAC). **Lineated Foliage-gleaner** *Syndactyla subalaris* [950–2,400 m; 2,600 m Ecuador] 2,700 m (La Aurora). **Slaty-winged Foliage-gleaner** *Philydor fuscipenne* [To 1,400 m] 1,600 m (Alto Honduras). **Olivaceous Woodcreeper** *Sittasomus griseicapillus* [To 1,550 m; 1,700 m Ecuador; 2,300 m in Venezuela and Bolivia; 1,800 m in Central Andes: Salaman *et al.* 2002a] 2,000 m (El Talisman). **Brown-billed Scythebill** *Campylorhamphus pusillus* [To 2,200 m; 2,600 m West Andes: Cuervo *et al.* 2003, Krabbe *et al.* 2006] 2,700 m (La Aurora). **Dot-winged Antwren** *Microrhopias quixensis* [To 1,100 m] 1,300 m (Cerro de la Paz: TMD). **White-bellied Antpitta** *Grallaria hypoleuca* [1,500–2,500 m] 2,700 m (sound-recorded La Aurora). **Brown-capped Tyrannulet** *Ornithion brunneicapillus* [To 900 m; 1,200 m Venezuela] 1,300 m (sound-recorded Cerro de la Paz: TMD). **Southern Bentbill** *Oncostoma olivaceum* [To 1,000 m] 1,300 m (Cerro de la Paz: TMD). **Scale-crested Pygmy-Tyrant** *Lophotriccus pileatus* [300–2,300 m] 2,900 m (heard Lepipuerto: TMD). **Slate-headed Tody-flycatcher** *Poecilotriccus sylvia* [To 1,100 m] 1,350 m (Cerro de la Paz: JEAC). **White-throated Spadebill** *Platyrinchus mystaceus* [To 2,000 m] 2,400 m (Alto Cantagallos). **Ruddy-tailed Flycatcher** *Terenotriccus erythrurus* [To 900 m; 1,000 m in Ecuador; 1,200 m: Parker *et al.* 1996] 1,350 m (Cerro de la Paz: JEAC). **Green-and-black Fruiteater** *Pipreola riefferii* [1,500–2,700 m; 3,050 m Venezuela and exceptionally 3,300 m Ecuador] 3,200 m (Filo Pamplona). **Song Wren** *Cyphorhinus phaeocephalus* [To 1,000 m] 1,300 m (heard Cerro de la Paz (TMD) and trapped below this). **Half-collared Gnatwren** *Microbates cinereiventris* [To 900 m; 1,200 m elsewhere: Parker *et al.* 1996] 1,300 m (Cerro de la Paz: TMD, and trapped below this). **Crimson-backed Tanager** *Ramphocelus dimidiatus* [To 1,700 m; to 2,600 m Bogotá: ABO 2000] 2,000 m (El Talisman where recently mist-netted: J. C. Luna *in litt.* 2006). **Common Bush-tanager** *Chlorospingus ophthalmicus* [1,000–2,700 m; to 3,000 m Venezuela] 3,200 m (Filo Pamplona).

Discussion

To date, we have recorded over 450 bird species in Serranía de los Yariguíes. A surprising number represent significant range or elevational extensions. Threatened

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species have been discussed elsewhere and include four species rated Critically Endangered at the time of our study: *Odontophorus strophium*, *Macroagelaius subalaris*, *Thryothorus nicefori* and *Amazilia castaneiventris*. Two of these (*O. strophium* and *M. subalaris*) have been downgraded to Endangered (or are proposed for such) due to the discovery of healthy populations in Yariguíes and elsewhere. Several new taxa including *Atlapetes latinuchus yariguierum*, at least three new *Scytalopus* taxa and new subspecies of *Grallaricula nana*, *Cinnycerthia olivascens*, *Synallaxis unirufa* and *Anisognathus lacrymosus* have been or will be described in the near future.

The number of new distributional records presented herein demonstrates the essentially unexplored nature of Yariguíes prior to our studies. It is surprising that so many undescribed taxa and new distributional records should be encountered *c.*100 km from the headquarters of the government's biological collection and research arm, Instituto Alexander von Humboldt (IAVH), or just four hours' travel from Bogotá. Yariguíes is relatively safe, particularly in the San Vicente and El Carmen regions, though negative misconceptions involving past guerrilla activity pervade the public consciousness in Colombia.

The avifauna of lower elevations of Yariguíes includes elements shared with the Chocó / Nechí Endemic Bird Areas, the latter of Critical conservation priority (Stattersfield *et al.* 1998). Many species we found at such elevations are also present in lowland forests of northern Antioquia, south Bolívar (Salaman & Donegan 2001, Salaman *et al.* 2002), and Serranía de las Quinchas in Boyacá (Quevedo *et al.* 2006a). The premontane fauna is likewise essentially similar to that of Serranía de las Quinchas (Stiles *et al.* 1999, Stiles & Bohórquez 2000, Laverde *et al.* 2005a).

The montane and *páramo* fauna of Yariguíes was the most interesting. As might be expected, the majority of species are shared with montane East Andes sites such as Cachalú / Charalá, Suratá, Rogitama and La Judía. At least four undescribed endemic subspecies appear to be restricted to Yariguíes: of *Scytalopus griseicollis*, *Synallaxis unirufa*, *Cinnycerthia olivascens* and *Anisognathus lacrymosus*. A further undescribed *Scytalopus* (not discussed in detail herein) may also be a Yariguíes

Captions to plates on opposite page

Figure 4. Tawny-bellied Hermit *Phaethornis syrmatophorus syrmatophorus*, El Talisman, Serranía de los Yariguíes, January 2003 (Thomas M. Donegan/Proyecto EBA)

Figure 5. Red-headed Barbet *Eubucco bourcieri*, Primavera, Serranía de los Yariguíes, February 2006 (M. Sharp/Proyecto YARÉ)

Figure 6. Lacrimose Mountain-tanager *Anisognathus lacrymosus* subsp. nov., Filo Pamplona, Serranía de los Yariguíes, July 2005 (Blanca Huertas/Proyecto YARÉ)

Figure 7. White-chinned Thistletail *Schizoeaca fuliginosa*, Filo Pamplona, Serranía de los Yariguíes, January 2006 (Blanca Huertas/Proyecto YARÉ)

Figure 8. Golden-winged Manakin *Masius chrysopterus*, El Talisman, Serranía de los Yariguíes, January 2003 (Thomas M. Donegan/Proyecto EBA)

Figure 9. Black-winged Saltator *Saltator atripennis caniceps*, La Luchata, Serranía de los Yariguíes. June 2005 (Blanca Huertas/Proyecto YARÉ)

endemic (Donegan & Avendaño ms). Such endemisms, if confirmed, may be due to the geographical isolation of the Yariguíes massif above 2,500 m.

A handful of the Yariguíes montane avifauna present counter-intuitive and unexplained biogeographical affinities. In particular, *Phaethornis s. syrmatophorus*, *Grallaricula nana* subsp. and a Three-striped Warbler *Basileuterus tristriatus* subsp. (Salaman *et al.* 2002a) each range across the Central Andes and Yariguíes, but are replaced by different subspecies on the east slope of the East Andes. The presence of multiple 'subspecies' in Santander and Norte de Santander that replace one another on different slopes, but which have wide ranges elsewhere is a situation also postulated for Grey-breasted Wood-wren *Henicorhina leucophrys* (Brewer 2001) and Slaty Brush-finch *Atlapetes schistaceus* (Paynter 1972), whilst up to three Common Bush-tanager *Chlorospingus ophthalmicus* races are considered present in Santander and Norte de Santander (Isler & Isler 1999). The similarities between disjunct Central and East Andes populations are borne out by specimens and, in some cases, vocalisations. Yariguíes populations allied to Central Andes populations could be relicts, the result of relatively recent colonisations between Andean ranges, or might indicate that the species concerned have or formerly possessed wider and continuous ranges to the south in the Central and East Andes. Such taxa and patterns require further investigation.

Following recent studies (Stiles *et al.* 1999, Stiles & Bohórquez 2000, ABO 2000, Salaman *et al.* 2002b, Laverde *et al.* 2005a, Quevedo *et al.* 2006a) and this paper, the avifauna of the East Andes is much better known than it was 20 years ago, on the west slope from Cundinamarca north to Santander and most of the east slope to Norte de Santander, from sea level to over 3,000 m. Attention must now focus on the Perijá range, the northernmost extension of the East Andes, which has barely been subject to detailed study and which almost certainly harbours undescribed taxa, subspecies that are strong candidates for species rank, and new distributional records in its dwindling and threatened forests.

Acknowledgements

We thank the rest of the EBA Project and YARÉ Project teams, John Arias, Martin Donegan, Cristóbal Ríos, Laura Rosado and Diana Villanueva, and local guides José Pinto, Alonso Macías, Hernando Figueroa, Abelardo Pimiento, Rafael Torres, Father James Mitchell, Father Mesías and Hernán & Juan Fajardo. Juan Carlos Luna, Clare Turner and Mike Sharp kindly provided photographs and additional records. Jürgen Beckers, C. Daniel Cadena, Roberto Chavarro, Emilio Constantino, Mateo Hernández, Gregorio Moreno, Bill Porteous, Loreta Rosselli, F. Gary Stiles and Johana Zuluaga kindly permitted mention of unpublished records or submitted such to DATAves (2006). C. Daniel Cadena, Guy Kirwan and F. Gary Stiles commented on and improved the manuscript. The late Paul Coopmans, Andrés Cuervo, Niels Krabbe, Mark Robbins and Stefan Woltmann helped identify some voices. John Bates assisted our discussion of *Tiaris fuliginosus* and Jason Weckstein *Ramphastos*. Sjoerd Mayer, Daniel Mennill, Robin Carter, Weber Girão, Stefan Woltmann and Ciro Albano kindly permitted reference to sound-recordings. CAS (resolution no. 832 of 2004, with thanks to Alvaro Prada, Armando Rodríguez and Hector Lamo), Corporación Autónoma Regional para la Defensa de la Meseta de Bucaramanga–CDMB (Hernando Guevara), and the mayors of San Vicente de Chucurí, Galán and El Carmen and sub-mayoralty of Yarima provided permissions for field work, the former including a collecting permit. Robert Prŷs-Jones, Mark Adams & Douglas Russell (Natural History Museum, Tring), Enrique Castillo & Fernando Forero

(Instituto Alexander von Humboldt, Colombia), José Gregorio Moreno Patiño (Universidad Industrial de Santander), Roque Casallas & Arturo Rodríguez (Universidad de la Salle), Ray Symonds (University Museum of Zoology, Cambridge University, UK), Miguel Lentino (Colección Ornitológica Phelps, Caracas), F. Gary Stiles (Instituto de Ciencias Naturales, Universidad Nacional), Gérman Gomez (Universidad del Cauca, Popayán) and J. F. & C. Voisin (Musée National d'Histoire Naturelle, Paris) provided access to specimens. The EBA and YARÉ expeditions were supported by: the Royal Geographical Society, BP Conservation Programme (BirdLife International, Conservation International, Flora & Fauna International, Wildlife Conservation Society), Fondo para Acción Ambiental, Fundación Omacha, Conservation International Colombia (Becas Iniciativa de Especies Amenazadas—Jorge Ignacio 'El Mono' Hernández-Camacho), Rio Tinto plc, Duke of Edinburgh, the Percy Sladen Memorial Fund (Linnean Society), Fundación ProAves, Game Conservancy Trust, World Pheasant Association, Tropical Andean Butterflies Diversity Project, Carter Ecological, Universidad Industrial de Santander, Universidad de Caldas, Universidad de Tolima and Gobernación de Santander. IdeaWild and The Explorers Club provided equipment for JEAC. TMD's work with *Myiophobus pulcher* in Tambito in 1997–98 was assisted by Dan Davison, Liliana Dávalos *et al.* and supported by Christ's College of Cambridge University, a J. W. Bennett Award, a G. R. N. Minchin Award and a Donald Robertson Award.

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Addresses: Thomas Donegan, Fundación ProAves, 33 Blenheim Road, Caversham, Reading RG4 7RT, UK, e-mail: tdonegan@proaves.org / thomasdonegan@yahoo.co.uk. Jorge Enrique Avendaño-C, Escuela de Biología, Universidad Industrial de Santander, A.A. 0678 Bucaramanga, Colombia, e-mail: jorgeavec@gmail.com / jorgeavec@ciencias.uis.edu.co. Elkin R. Briceño-L., Corporación Autónoma Regional para la Defensa de la Meseta de Bucaramanga (CDMB), Cra. 33 #69–04, Bucaramanga, Colombia, e-mail: elkinbl@hotmail.com. Blanca Huertas, University College London / Natural History Museum, London, UK, e-mail: b.huertas@nhm.ac.uk / blancahuertas@yahoo.com

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New distributional and other bird records from Tatamá Massif, West Andes, Colombia

by María Ángela Echeverry-Galvis & Sergio Córdoba-Córdoba

Received 14 June 2006

The West Andes of Colombia have received comparatively little ornithological attention (Proyecto Biomap & Instituto Humboldt 2004). Avian inventories are available for a number of localities in dptos. Antioquia, Valle del Cauca, Cauca and Nariño (e.g. Echeverri 1986, Negret 1994, Salaman 1994, Hilty 1997, Donegan & Dávalos 1999, Cuervo *et al.* 2003, Krabbe *et al.* 2004). In recent years, several

previously undescribed bird species have been discovered in this cordillera (e.g. Salaman & Stiles 1996, Robbins & Stiles 1999) and many range extensions have been noted (e.g. Salaman 1994, Donegan & Dávalos 1999, Cuervo *et al.* 2003, Downing & Hickman 2004, Krabbe *et al.* 2006). The efforts of others, e.g. G. Kattan (Kattan *et al.* 1994) and H. Álvarez (Stiles & Alvarez-Lopez 1995), have also brought a better understanding of some species' ranges. Ornithological surveys in the vicinity of Tatamá National Natural Park have been few, though dating from 1909 (Hellmayr 1911), more recently to the north at Alto de Pisones, on the west slope in dpto. Risaralda (Salaman & Stiles 1996, Stiles 1998), and finca Providencia, municipality of Pueblo Rico, dpto. Risaralda, below the park limits (SC-C unpubl.). However, no ornithological surveys have been conducted within the park (Franco & Bravo 2005).

Seventeen Important Bird Areas (IBAs) have been delimited on both slopes of the West Andes (Boyla & Estrada 2005), including five national natural parks, but protected areas are patchily distributed and do not cover a complete altitudinal gradient. Many are subject to deforestation and illegal colonisation, making conservation action even more urgent. Mid elevations on the west slope of the West Andes (mainly 500–1,800 m) urgently require effective conservation, as many Pacific-slope endemics (at least 67) favour this altitudinal range (Córdoba 2001). Forest habitats are declining at an alarming rate on the west slope of the Andes and in adjacent lowlands. Infrastructural developments such as the proposed highway to the Pacific port of Nuquí-Tribuga (in the Chocó lowlands) threaten to increase such deforestation. Bird populations are being fragmented, especially on montane slopes, whilst our knowledge of the distributions, biology and ecology of endemics and threatened species in the region is poor, making appropriate conservation measures impossible to design with confidence.

The 'Grupo de Exploración y Monitoreo Ambiental' (GEMA) of the Instituto de Investigación de Recursos Biológicos Alexander von Humboldt (IAvH), as part of the 'Conservación y uso sostenible de la biodiversidad de los Andes Colombianos' project, conducted biological inventories on 21–29 August 2004 in Tatamá National Natural Park, dpto. Risaralda. A total 45.8 man-hours of observations and recordings, and 1,184 mist-net/hours were conducted during bird surveys exclusively in forest. Of the 116 species of 31 families identified, tanagers, followed by flycatchers and hummingbirds, were the commonest groups. All sound-recordings have been deposited in the Banco de Sonidos Animales (BSA-IAvH), skins and spirits in the 'Colección de Vertebrados Jorge Hernández-Camacho' (IAvH), Villa de Leyva, Boyacá, and tissue samples at the 'Banco de Tejidos' (IAvH), Palmira Facility, Valle del Cauca.

We present new geographical or altitudinal records, confirmation of presence for some species, and comments on taxa endemic to the West Andes or threatened species. A complete list of all species recorded will be published elsewhere and is available on request from the authors. Taxonomy and nomenclature follow Remsen *et al.* (2006).

Study sites

Two localities were surveyed in Tatamá National Natural Park, dpto. Risaralda, municipality of Pueblo Rico, vereda La Cumbre. High-Andean montane forest covers the area, with evidence of some selective logging and hunting. The first site was accessed by a 20-minute drive from the refuge at Planes de San Rafael Nature Reserve (municipality of Santuario), north to quebrada Risaralda, followed by a one-hour walk upslope. The second site was two hours walk from the first, along the mountain ridge to 2,650 m.

Site 1 (05º09'N, 76º01'W) is on the west slope of the West Andes, at 2,200–2,400 m, near the ridge and *c.*20 km from Santuario municipality. Continuous forest covers the steep terrain (20–30º slopes), the understorey is not dense, reaching 9–12 m high, with a 15–18 m-high canopy, and emergents up to 30 m. Some of the commonest families are Meliaceae, Lecythidacea, Cunnoniaceae, Sabiaceae, Clusiacea and Hippocastanaceae (A. Prieto *in litt.* 2006).

Site 2 (05º08'N, 76º02'W) lies on the ridge at 2,600–2,800 m and *c.*25 km from Santuario municipality. Continuous forest covers the rather gentler slopes at this site. Floristic composition and vegetation structure were very similar in general to Tatamá site 1, but with a denser understorey and taller canopy of up to 20–24 m (A. Prieto *in litt.* 2006).

Major range extensions

WHITE-THROATED SCREECH-OWL *Megascops albogularis*
Heard at both sites and occasionally near Planes de San Rafael refuge, at 2,000 m, during the late afternoon. Previously reported in the West Andes in dpto. Cauca (Hilty & Brown 1986) and at Páramo de Frontino, dpto Antioquia (Krabbe *et al.* 2006), respectively *c.*250 km south and *c.*150 north of our study site.

RUFOUS-BANDED OWL *Ciccaba albitarsis*
Two observed and sound-recorded pre-dawn at site 1. Previously known in the West Andes at Cerro Munchique and Tambito, dpto. Cauca (Hilty & Brown 1986, Donegan & Dávalos 1999), and at Páramo de Frontino (Krabbe *et al.* 2006), *c.*290 and *c.*150 km from Tatamá. Our record closes the gap between these localities, suggesting a more continuous distribution in the West Andes.

FAWN-BREASTED BRILLIANT *Heliodoxa rubinoides*
A male and juvenile collected at site 1. Very few localities in the West Andes, one just above Cali (Hilty & Brown 1986), and common in Tambito Nature Reserve and on the adjacent east slope in Cauca (Donegan & Dávalos 1999). Recently recorded in south-west Antioquia, in the municipality of Caicedo (Cuervo *et al.* 2003). Our record closes the *c.*450-km gap between the Valle and Antioquia records, suggesting the species' range is continuous in the West Andes.

TOURMALINE SUNANGEL *Heliangelus exortis*
Several trapped and tape-recorded at site 2. Two males, a female and two unsexed individuals were collected. Like the previous species, previously known in this cordillera from sites in Valle del Cauca (Hilty & Brown 1986), Cauca (Donegan & Dávalos 1999) and Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006). Again, our record fills a *c.*450-km gap and suggests a continuous range in the West Andes.

TYRIAN METALTAIL *Metallura tyrianthina*
Observed at site 1, and sound-recorded and trapped at site 2, with a male and juvenile collected. Previously known from sites *c.*150 km to the north in Antioquia (Hilty & Brown 1986, Krabbe *et al.* 2006) and *c.*290 km south in Cauca (Hilty & Brown 1986, Donegan & Dávalos 1999).

LONG-TAILED SYLPH *Aglaiocercus kingi*
A. kingi was common at 2,650 m, with several mist-netted, of which a male with a brood patch and female were collected. At site 1, *A. coelestis* was common (and a female collected), but *A. kingi* was not recorded there, suggesting that they replace each other between the two sites. Nearby, mainly below 2,000 m, *A. coelestis* was also common at finca Providencia, Pueblo Rico (05º10'N, 76º04'W) (SC-C unpubl.). Although the species' presence has long been suspected throughout the West Andes, published records exist only from dptos. Nariño north to Valle del Cauca, and in Antioquia (Hilty & Brown 1986, Donegan & Dávalos 1999, Cuervo *et al.* 2003).

WHITE-FACED NUNBIRD *Hapaloptila castanea*
This rare puffbird was recorded at both sites; most observations involved singles perched inconspicuously. More frequent at site 1, where a group of three was observed in the subcanopy, giving short hoot-like calls and flying short distances (5–10 m). More conspicuous at dawn by voice, but may sing all day. *H. castanea* has been reported at 750–2,400 m on the west slope of the cordillera, with records at low passes on the east slope (Hilty & Brown 1986), and is also local and uncommon in Ecuador (Ridgely & Greenfield 2001). Hilty & Brown (1986) depict a continuous distribution in the West Andes, but all published localities are in dptos. Antioquia, Cauca and Nariño (Miller 1963), with the only recent record in Munchique, where it was considered rare (Negret 1994). Our discovery represents an upslope range extension of *c.*200 m.

PEARLED TREERUNNER *Margarornis squamiger*
A female with a furcular full of fat deposit and an unsexed individual collected at site 2. Previously reported for this cordillera from Parámo de Frontino, north-west Antioquia (Krabbe *et al.* 2006), the municipality of Jardín, on the east slope in the same department (Cuervo *et al.* 2003), and Tambito Natural Reserve, dpto. Cauca (Donegan & Dávalos 1999). Ours is the first record for dpto. Risaralda.

BICOLOURED ANTVIREO *Dysithamnus occidentalis*
Four tape-recorded and observed at site 1, whilst four others were trapped and two more escaped from the mist-net. At site 2, three males, two females and a juvenile were collected (the juvenile, a female and male were trapped together). All showed evidence of body- and wing-feather moult. Poorly known in Colombia, the species has been reported in the south-west, from dpto. Valle del Cauca south to Nariño and Ecuador (Renjifo *et al.* 2002). In Ecuador, subspecies *punctipectus* is present at 1,000–1,600 m on the west slope of the Cordillera del Cóndor (Ágreda *et al.* 2005). Taxonomy and relationships unclear; the species was previously placed in *Thamnomanes*, or as a subspecies of *Thamnophilus aethiops* (Remsen *et al.* 2006), whilst its biological and ecological requirements are also largely unknown. Parker *et al.* (1996) considered it of conservation concern, and BirdLife International (2004) and Renjifo *et al.* (2002) as Vulnerable at global and national levels, despite the paucity of data. Our records represent a northward range extension of *c.*200 km in Colombia and an altitudinal range extension of *c.*400 m.

SCHWARTZ'S ANTTHRUSH *Chamaeza turdina*
At least two tape-recorded and seen in dense understory on all days at site 1, responding to playback. The species is easily identified and more regularly encountered by voice. Natural vocalisations were most frequently heard early morning. It was also heard at dawn near the refuge at Planes de San Rafael, on the east slope of this cordillera. Ours are the first records for the West Andes and confirm its presence on both slopes of the cordillera.

RUFOUS ANTPITTA *Grallaria rufula*
A female collected at site 1 resembles nominate *rufula* in plumage and thus individuals from the East Andes (Hilty & Brown 1986). However, subspecies (and species) limits in *G. rufula* are under discussion. Previously known in the West Andes only from northern Antioquia (Hilty & Brown 1986, Krabbe *et al.* 2006), *c.*200 km to the north, and *c.*200 km to the south at Farallones de Cali, Valle del Cauca (Hilty & Brown 1986).

BARRED FRUITEATER *Pipreola arcuata*
One seen in the subcanopy, and a male and female collected together at site 2. Both had enlarged and active gonads, with a visible brood patch. The female had no atrisic follicles and much greater furcular and flank fat deposits. Nearest records are from Munchique, dpto. Cauca, *c.*290 km to the south (Hilty & Brown 1986), and Las Orquídeas National Natural Park, *c.*130 km to the north (Echeverri 1986).

RUFOUS-BREASTED FLYCATCHER *Leptopogon rufipectus*
Three sound-recorded and observed at site 1, which becomes the third known locality in the West Andes and represents a range extension of *c.*170 km to the south from Las Orquídeas National Natural Park (Echeverri 1986) and *c.*150 km from Páramo de Frontino (Krabbe *et al.* 2006).

RUFOUS-HEADED PYGMY-TYRANT *Pseudotriccus ruficeps*
Mist-netted at both sites and two were collected. Tape-recorded giving short trills and bill-snaps, presumably in group contact or territorially. Found in forest understorey, mainly in vegetation less than 1 m high with ground cover almost 100% ferns. Records for the West Andes are from Cauca (Donegan & Dávalos 1999), Valle del Cauca (Hilty & Brown 1986) and Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006). Our records represent a midpoint in the species' range in the cordillera, where it is probably continuously distributed.

SMOKY BUSH-TYRANT *Myiotheretes fumigatus*
Singles observed and tape-recorded at both sites, on exposed branches near the canopy in a small forest clearing on the ridge, or on a taller emergent on a steep slope. Our records represent a northerly range extension of *c.*300 km from Cauca (Hilty & Brown, 1986) and *c.*150 km from Parámo de Frontino, Antioquia (Krabbe *et al.* 2006).

CITRINE WARBLER *Basileuterus luteoviridis*
One collected at site 2 and another four escaped from the mist-net. Previously known from the West Andes at Parámo de Frontino, Antioquia, and Munchique, Cauca (Hilty & Brown, 1986). Tatamá is *c.*150 km south of Frontino and *c.*290 km north of Munchique, suggesting the species is more continuously distributed through the cordillera, albeit restricted to high-elevation remnant forests above 2,000 m. Probably very local, as at several sites in the Central and East Andes it is abundant at some sites but almost absent from others nearby (MAE-G & SC-C pers. obs.).

GOLDEN-HOODED TANAGER *Tangara larvata*
Five were seen in a mixed-species flock along with other tanagers at site 1. Previously known to 1,800 m (Hilty & Brown, 1986), our record increases its altitudinal range by *c.*400 m.

RED-HOODED TANAGER *Piranga rubriceps*
One observed in a mixed-species flock in treetops at site 1. Previous records are from Cauca (Donegan *et al.* 2002), Valle del Cauca (Hilty & Brown 1986) and Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006).

RUFOUS-CRESTED TANAGER *Creurgops verticalis*
One was observed foraging mainly in treetops at site 1. Scattered records are available from the Central and West Andes (Hilty & Brown 1986), in Nariño, Valle del Cauca and north-west Antioquia in the latter cordillera. Echeverri (1986) collected a male in the southern part of Frontino, in Las Orquídeas National Natural Park, but neither Cuervo *et al.* (2003) or Krabbe *et al.* (2006) recorded the species there.

YELLOW-THROATED BUSH-TANAGER *Chlorospingus flavigularis*
One seen at close range, foraging for insects on small branches, leaves and an inflorescence, at site 1. Previously recorded in the northernmost West Andes on the upper río Sinu (*c.*250 km to the north) (Hilty & Brown 1986) and Las Orquídeas National Natural Park (*c.*160 km) (Echeverri 1986); and *c.*125 km to the south in Valle del Cauca, and south to Nariño (Hilty & Brown 1986). Recorded to 1,650 m (Las Orquídeas), thus our observation closes the gap between these records and is an altitudinal extension of *c.*600 m in the West Andes. The race concerned was probably *C. f. marginatus*, due to the extent of yellow on the throat-sides, but confirmation is lacking.

PLUSH-CAPPED FINCH *Catamblyrhynchus diadema*
Mist-netted in dense bamboo at both sites, a range extension of *c.*200 km from Valle del Cauca to the south (Hilty & Brown 1986) and *c.*150 km from Páramo de Frontino to the north (Krabbe *et al.* 2006).

TANAGER-FINCH *Oreothraupis arremonops*
Four were observed, tape-recorded and mist-netted at site 2, and a male and juvenile were collected. According to Renjifo *et al.* (2002), this species is known in Colombia from Antioquia, *c.*160 km north of our study site, and in Valle del Cauca, Cauca and Nariño, the first *c.*200 km to the south. In Colombia, Tanager-finch is mainly observed in national natural parks or protected areas of mature forest, suggesting it is sensitive to disturbance. It is endemic to the western slope of the West Andes and the main Andean range, south to Pichincha and Imbabura, Ecuador (BirdLife International 2004). Due to habitat loss, the species is considered Vulnerable globally and nationally (Renjifo *et al.* 2002, BirdLife International 2004).

SLATY FINCH *Haplospiza rustica*
Six mist-netted at site 1 (two males, one subadult and three females); a female collected had an egg in formation in the upper oviduct. According to Sánchez (2005), the species is strongly tied to seeding bamboo *Chusquea*, which seems to regulate its breeding period, but the bamboo in Tatamá was not clearly in seed. The species' range in Colombia is poorly known, perhaps due to its unpredictable occurrences (Salaman *et al.* 2002), but it occurs in all three cordilleras. For the West Andes, it has been recorded in Valle del Cauca and Cauca, *c.*200 km south of Tatamá, with observations at Cerro Munchique and Tambito (Hilty & Brown 1986, Donegan & Dávalos 1999).

Minor range extensions

White-throated Quail-dove *Geotrygon frenata*.—Tape-recorded and seen at both sites, *G. frenata* was common at site 1. The Tatamá Massif appears to be its northernmost limit in this cordillera, where it mainly occurs below 2,500 m (in the

Central Andes, there is a record at 3,300 m from Parque Regional Natural Ucumari). The species' altitudinal and geographic range is surely more continuous. **Andean Pygmy-owl** *Glaucidium jardinii*.—A male in heavy body- and flight-feather moult and with fully ossified skull was collected at site 1. Measurements and general coloration corresponded to *G. jardinii* rather than the recently described *G. nubicola* (Robbins & Stiles 1999). In the West Andes known from Cerro Torrá (50 km to the south) (Hilty & Brown 1986), and in Cauca and Antioquia (Donegan & Dávalos 1999, Krabbe *et al.* 2006). **Mottled Owl** *Ciccaba virgata*.—Seen and sound-recorded pre-dawn at site 1. Typically found in the Central Andes below 2,000 m (Hilty & Brown, 1986), making our record a small altitudinal extension, to 2,200 m. A more continuous distribution to the north seems likely. **Speckle-faced Parrot** *Pionus tumultuosus*.—Pairs observed in flight twice at site 1 and once at site 2, the second locality in the West Andes, after that in Antioquia (Cuervo *et al.* 2003). **Chestnut-collared Swift** *Streptoprocne rutila*.—Flocks over site 1 and the steep valley of quebrada Risaralda. Few localities in the West Andes, though perhaps more common than appears in the literature, and is probably continuously distributed through the entire range. **Green Violet-ear** *Colibri thalassinus*.—Two tape-recorded near the treeline at site 1. As noted by Cuervo *et al.* (2003), probably largely restricted to the east slope in this cordillera, only occasionally penetrating to the west via low passes, e.g. just north of Tatamá and at Tambito, Cauca (Donegan & Dávalos 1999). **Masked Trogon** *Trogon personatus*.—Several seen and tape-recorded at both sites, but more abundant at 2,650 m. In the West Andes mainly to 2,500 m (Echeverri 1986, Hilty & Brown 1986), once to 3,300 m (Krabbe *et al.* 2006). **Striped Treehunter** *Thripadectes holostictus*.—Several tape-recorded and one seen at close range at site 1. In the West Andes, until recently considered to reach north only to dpto. Cauca (Hilty & Brown 1986), but since found near Jerico, *c.*80 km from Tatamá (Cuervo *et al.* 2003), and Parámo de Frontino (Krabbe *et al.* 2006). Streak-capped Treehunter *T. virgaticeps* was also recorded at both sites, being commoner than *T. holostictus* at site 1. **Uniform Antshrike** *Thamnophilus unicolor*.—Frequently sound-recorded at site 1. Observed alone or in flocks of up to five. Probably more widespread in the West Andes than known. **Chestnut-naped Antpitta** *Grallaria nuchalis*.—Several responded vigorously to playback and were observed and tape-recorded at site 2. Third locality in the West Andes, after those in Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006). Appears rather less common at Tatamá than in the Central Andes at 2,200–3,000 m. **Slate-crowned Antpitta** *Grallaricula nana*.—Several tape-recorded, observed and mist-netted at site 2. Three collected were all in heavy moult of flight- and body-feathers, and some juveniles still had vinaceous-rufous down feathers. Known from Valle del Cauca (Hilty & Brown 1986) and Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006), our record suggests a more continuous distribution in the West Andes. **Ocellated Tapaculo** *Acropternis orthonyx*.—Two tape-recorded and one observed at site 2, the third locality for the West Andes after those in Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006). **Black-capped Tyrannulet** *Phyllomyias nigrocapillus*.—

Several tape-recorded and two collected, of which a male was in heavy moult in the flight-feathers, at site 2. Tatamá represents a midpoint in its range, with records to the north from three localities in Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006), and to the south in Valle del Cauca. **Flavescent Flycatcher** *Myiophobus flavicans*.—Individuals and pairs observed at site 1, regularly joining mixed-species flocks on the ridge. Reported by Cuervo *et al.* (2003) at nearby Alto de Pisones and further north in Antioquia, and to the south known from northern Valle del Cauca and Cauca. **Yellow-bellied Chat-tyrant** *Ochthoeca diadema*.—Mist-netted and tape-recorded at both sites, and two collected. Reported for Nariño and Valle del Cauca, *c.*200 km to the south, and to the north in Antioquia (Echeverri 1986, Cuervo *et al.* 2003, Krabbe *et al.* 2006). **Pale-edged Flycatcher** *Myiarchus cephalotes*.—Two observed and tape-recorded at forest borders between quebrada Risaralda and upslope towards site 1. More common than previously noted in the West Andes, it probably favours forest edges and streams on slopes (Cuervo *et al.* 2003). **Sharpe's Wren** *Cinnycerthia olivascens*.—Groups seen and tape-recorded foraging in the understorey, sometimes in small stands of *Chusquea*, at both sites, and common in mixed-species flocks. Scattered reports in the West Andes (Echeverri 1986, Hilty & Brown 1986, Cuervo *et al.* 2003, Krabbe *et al.* 2006). **Chestnut-breasted Wren** *Cyphorhinus thoracicus*.—Family groups of 3+ tape-recorded at site 1, and two collected at site 2. Previous records in the West Andes are for dptos. Valle del Cauca and Cauca to the south, Alto de Pisones, Risaralda (Cuervo *et al.* 2003) and Las Orquídeas, Antioquia (Echeverri 1986). **White-capped Tanager** *Sericossypha albocristata*.—Tape-recorded and observed at both sites in groups of 4–12. Hilty & Brown (1986) noted its presence only in the Central and East Andes, but since found at two localities in Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006). Suitable habitat exists both north and south of Tatamá and the species may occur throughout much of the cordillera in montane forest. **Grey-hooded Bush-tanager** *Cnemoscopus rubrirostris*.—Observed, mostly in mixed-species flocks, in the treetops and subcanopy at site 2; rarely in lower strata. A male with an active brood patch collected. Sparsely distributed in all three ranges with, in the West Andes, records from Cauca (Hilty & Brown 1986) and Antioquia (Echeverri 1986, Cuervo *et al.* 2003, Krabbe *et al.* 2006). **Black-capped Hemispingus** *Hemispingus atropileus*.—A group observed at site 1 and, at site 2, four were captured, of which a female and subadult were collected. Previously reported in the West Andes in Cauca, at Munchique *c.*290 km south, and Antioquia *c.*65 km to the north (Donegan & Dávalos 1999, Echeverri 1986, Cuervo *et al.* 2003, Krabbe *et al.* 2006). **Mountain Cacique** *Cacicus chrysonotus*.—Observed and tape-recorded at site 2, foraging in small mixed-species flocks. Previously reported in the south of the cordillera, in Valle del Cauca, and further north, in Antioquia (Echeverri 1986, Hilty & Brown 1986, Cuervo *et al.* 2003, Krabbe *et al.* 2006), suggesting a continuous distribution in the West Andes.

Endemics and threatened species

Chestnut Wood-quail *Odontophorus hyperthyrus*.—At least two groups tape-recorded at site 1 and one at site 2. This endemic occurs on both slopes of the Central and West Andes, at 1,400–2,700 m (Hilty & Brown 1986, Salaman *et al.* 1999), and is Near Threatened nationally (Renjifo *et al.* 2002) and globally (BirdLife International 2004), due to habitat loss and hunting. **Black-billed Mountain-toucan** *Andigena nigrirostris*.—Lone individuals observed vocalising from the canopy and twice following mixed-species flocks. Sympatric with Emerald Toucanet *Aulacorhynchus prasinus* at both sites, but never observed in the same flocks. Emerald Toucanet was commoner at site 1 whilst *A. nigrirostris* was equally abundant at both. *A. nigrirostris* is Near Threatened in Colombia due to extensive habitat loss with, at least in some areas, decreasing populations (Renjifo *et al.* 2002). **Purplish-mantled Tanager** *Iridosornis porphyrocephala*.—*c.*10 of this nationally and globally Near-Threatened species (Renjifo *et al.* 2002, BirdLife International 2004) were seen and two collected; apparently commoner at site 2. **Dusky Bush-tanager** *Chlorospingus semifuscus*.—This endemic was tape-recorded, mist-netted and collected at both sites, but more frequently at site 2. Sang mainly on the ridge at 2,600 m and above. Previously reported to 2,500 m (Isler & Isler 1999), but where ridgetop forests are suitable for 'lekking' (Bohórquez & Stiles 2002) likely to occur considerably higher. **Red-bellied Grackle** *Hypopyrrhus pyrohypogaster*.—This endemic is categorised as Endangered both nationally (Renjifo *et al.* 2002) and globally (BirdLife International 2004. Commonly seen in small groups of 6–8, some birds calling from the 20–22 m canopy whilst others probed for insects under branches and leaves down to mid level. One group was seen regularly near quebrada Risaralda at *c.*2,000 m.

Concluding remarks

Many species in the West Andes have broader ranges than indicated in the mainstream literature, as noted here and by other studies (e.g. Echeverri 1986, Donegan & Dávalos 1999, Cuervo *et al.* 2003), particularly north of dpto. Valle del Cauca. However, some species' ranges remain unclear in several parts of this cordillera. Some birds at the elevations we surveyed may be widespread at higher elevations, but had not been recorded earlier due to lack of appropriate field work, or may be present on both slopes. Further surveys around the lower passes, e.g. that just north of Tatamá, between Risaralda and Antioquia, would be welcome. We found 21 species whose ranges are extended north or south, five at higher elevations than previously known, and one not previously reported in the West Andes. Amongst our range extensions are two species endemic to the West Andes, two globally threatened (*Oreothraupis arremonops* and *Dysithamnus occidentalis*) and three Near-Threatened species. Many of the national natural parks in the West Andes are sited at higher elevations, including Tatamá, making an evaluation of the efficiency of the protected areas network in conserving existing biodiversity much

needed. Future surveys and conservation plans should also focus on the lower montane and premontane slopes which remain little-protected.

Acknowledgements

The Instituto de Investigación de Recursos Biológicos Alexander von Humboldt provided logistic and financial support. Collecting permits were granted under governmental decrees 302 and 309 of 2003. The survey was funded by the Global Environmental Facility, Netherlands Embassy and World Bank. We thank Luis Ovidio Ledesma, Chairman of the Local Community Council at Planes de San Rafael, the forest guard at Planes de San Rafael, the ecological guides in Santuario, UEASPNN-PNN Tatamá, Hugo Ballesteros (the park director), Socorro Sierra and José Agustín López for assistance in the field, and all members of the 'Grupo de Exploración y Monitoreo Ambiental'. Thomas Donegan and Daniel Cadena furnished comments that greatly improved the manuscript.

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Addresses: Grupo de Exploración y Monitoreo Ambiental (GEMA), Instituto Humboldt, Claustro de San Agustín, Parque Ricaurte, Villa de Leyva, Boyacá, Colombia. Current address: Calle 52A #9-72 apto. 201, Bogotá, Colombia, e-mail: mayayito@yahoo.com

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Alca antiqua (Marsh, 1870), an invalid combination for a fossil auk (Alcidae)

by Storrs L. Olson

Received 15 June 2006

The most abundant fossil bird in the early Pliocene deposits of the Yorktown Formation in North Carolina is an auk originally described by Marsh (1870) as *Catarractes antiquus*. *Catarractes* is a variant spelling of a generic name that was synonymised with *Uria* Brisson (1760), which is now used for the living murres. Olson & Rasmussen (2001: 273) recognised that the affinities of the fossil auk lay with those of the genus *Alca* Linnaeus (1758), so they created the new combination *Alca antiqua* (Marsh, 1870). This, however, is a secondary homonym preoccupied by *Alca antiqua* Gmelin (1789), the basionym for the extant Ancient Murrelet *Synthliboramphus antiquus*, and therefore is unavailable for the fossil species. The next available name is *Australca grandis* Brodkorb (1955). Olson & Rasmussen (2001) synonymised *Australca* Brodkorb (1955) with *Alca* Linnaeus (1758). Therefore, the fossil species should now be known as:

Alca grandis (Brodkorb, 1955), new combination

Acknowledgements

I thank Neil Adam Smith for calling this problem to my attention. The manuscript was reviewed by Richard C. Banks, Walter Bock, Steven Gregory, Pamela Rasmussen and David W. Steadman.

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Address: Department of Vertebrate Zoology, National Museum of Natural History, Smithsonian Institution, P.O. Box 37012, Washington DC 20013-7012, USA, e-mail: olsons@si.edu

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The eggs of the Canarian (or Meade-Waldo's) Black Oystercatcher *Haematopus meadewaldoi*

by Michael Walters, Douglas G. D. Russell, Frank D. Steinheimer & Christiane Quaisser

Received 3 July 2006

Hockey (1996) stated that the eggs of the probably Extinct *Haematopus meadewaldoi* Bannerman, 1913, are undescribed and, by implication, unknown. Even in the most comprehensive work on avian eggs, the *Handbuch der Oologie* (Schönwetter & Meise 1962: 373, Meise 1988: 258–259), no such egg is mentioned. In fact there is an egg, probably the only one, in the collection of Dr Wolfgang Makatsch (Fig. 1). It does not, of course, look any different from any other oystercatcher *Haematopus* egg. Oystercatcher eggs are oval to elliptical, pale yellowish stone to clay buff in colour, blotched, spotted and streaked brown and black. They are distinctive and unlike those of other waders, but the eggs of the different *Haematopus* are similar, except those of Magellanic Oystercatcher *H. leucopodus*, which appear consistently slightly darker in ground colour.

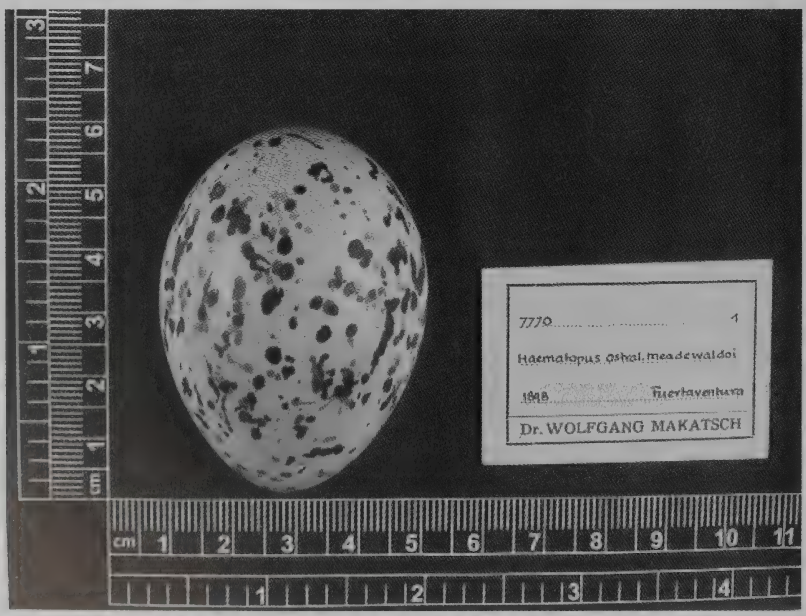

Figure 1. Egg of *Haematopus meadewaldoi*, in the Staatliches Museum für Tierkunde, Dresden (Christiane Quaisser)

The Natural History Museum (NHM, Tring) has a file on the Makatsch collection that contains seven images of this egg. According to correspondence between Dr Makatsch and the then curator of eggs, MW (following Makatsch's visit to Tring), dated 16 December 1982, Makatsch acquired the egg on 4 January 1950 with the egg collection of Dr Ludwig Huhn (d. 1949) at Bautzen. The egg, in good condition and signed by the collector (probably Ramón Gómez), was offered for exchange to the NHM. Subsequent correspondence with Christopher Swann (who sponsored Makatsch's visit to Tring) indicates that, following Makatsch's death, the collection was bequeathed to his grandson Christoph Schnabel. Walters wrote to Schnabel on 10 September 1984 suggesting the exchange as per the arrangement with his grandfather, or that the egg be deposited in a German museum. Makatsch (1906–83), was a famous ornithologist in the former East Germany, known not only for his egg collection but for field guides and other works on birds and eggs. His was one of the largest private egg collections in Europe (*c.*32,000 eggs in 16,000 clutches of 1,200 species). In the 1990s the collection (including the egg in question) was purchased (through the late Siegfried Eck) by the Staatliches Museum für Tierkunde, Dresden, Germany, where it remains. Data relating to the egg of *H. meadewaldoi* is on two record cards in Makatsch's acquisitions catalogue: Makatsch collection no. 7770: one clutch of one egg; Fuerteventura, Canaries; 1898 acquired on 4 January 1950 with the egg collection of Huhn (signed no. 1094). Measurements: 54.5 × 38.8 mm; 3.67 g (i.e. smaller than typical eggs of *H. moquini*, as was predicted would be the case by Bannerman 1963). The taxon was named for Edmund Gustavus Bloomfield Meade-Waldo (1855–1934) who collected the holotype.

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Addresses: Michael Walters, 62 Mark Street, Portrush, Co. Antrim BT56 8BU, Northern Ireland, e-mail: mpwalters62@btinternet.com. Douglas G. D. Russell, Curator, Bird Group, The Natural History Museum, Akeman Street, Tring, Herts. HP23 6AP, UK, e-mail: d.russell@nhm.ac.uk. Frank D. Steinheimer, Sylter Strasse 18, D-90425 Nürnberg, Germany, e-mail: franksteinheimer@yahoo.co.uk. Christiane Quaisser, Straße des Friedens 12, D-01738 Klingenberg, Germany, e-mail: c.quaisser@planet-interkom.de

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Range extensions and noteworthy records for mainland Ecuador

by Charles A. Vogt

Received 5 July 2006

Until the publication of Ridgely & Greenfield (2001) knowledge of avian distribution in Ecuador was incomplete and reliant on relevant but geographically adjacent and outdated sources such as Hilty & Brown (1986), as well as general checklists (Ridgely *et al.* 1998). Now, however, ornithologists and birdwatchers alike possess a ready resource to assess the import of their sightings. Nonetheless, distributions are a first approximation, especially for rare or poorly known species, and will be refined as new data are reported (e.g. Freile 2004). Here, I present noteworthy records which enhance our knowledge of bird distributions in mainland Ecuador.

Species accounts

CURVE-BILLED TINAMOU *Nothoprocta curvirostris*
One observed closely on a grassy road and adjacent pasture, on a ridge at 3,000 m, 2 km north-east of Hacienda Zuleta (12 km east of San Pablo, Imbabura), on 25 June 2006. Uncommon and somewhat local in shrubby *páramo* and pastures, usually near patches of woodland, from south-east Carchi (Guandera Biological Reserve), southern Imbabura (Laguna Cuicocha) and Pichincha, south to eastern Azuay (Sigsig and Oña) and Zamora-Chinchipe (Cerro Toledo) (Ridgely & Greenfield 2001). Generally scarce and infrequently encountered in Ecuador, mine is the third published locality on the eastern slope of Ecuador, all of them on the inter-Andean side.

TIGER HERON *Tigrisoma* sp.
An immature on 16 September 2000 at La Perla reserve, 1 km south of La Concordia, Pichincha, at 200 m. Given the brief view and the difficulty in identifying immature tiger herons, I was unable to distinguish the species. Rufescent Tiger Heron *T. lineatum* is very rare in lowlands of western Ecuador, with several old records from the río Peripa (Manabí/Los Ríos), Vinces (Guayas) and a sight record of an immature from the río Palenque on 23 October 1997 (Ridgely & Greenfield 2001). Given the low elevation, slow-flowing stream and distance from the foothills, it appears probable that my observation was of a Rufescent Tiger Heron. However, there appears to be a resident population of Fasciated Tiger Heron *T. fasciatum* near Playa de Oro, in northern Esmeraldas, at 100 m, and it is suspected that most specimen records away from the rio Peripa and Vinces area refer to *T. fasciatum* (O. Jahn *et al. in* Ridgely & Greenfield 2001).

SNOWY EGRET *Egretta thula*
One seen by the author and M. & D. Weller on 21 January 2005 by a roadside pond at 2,100 m, *c.*5 km from hacienda San Isidro, 4 km south-west of Cosanga, Napo. Uncommon to locally very common in the lowlands of east and west Ecuador, with small numbers occasionally reported from lakes in the central valley (Ridgely & Greenfield 2001, 2006), but mine is the first published record from the eastern slope of Ecuador.

BLACK-CROWNED NIGHT HERON *Nycticorax nycticorax*
An adult observed, and its vocalisations recorded, at La Perla reserve, 1 km south of La Concordia, Pichincha (200 m), on 13–14 August 2004. Rare to locally fairly common in mangrove, tidal flats, freshwater marshes and forested margins of waterbodies in the lowlands of west and north-east Ecuador and in the northern highlands, but more numerous in south-west Ecuador, from Manabí south. Presumably once resident around lakes Yaguarcocha and San Pablo, Imbabura, as well as in the Parque Carolina marshes, in Quito, Pichincha (Ridgely & Greenfield 2001, 2006). My record represents the first recent confirmed record from Pichincha.

DARK-BILLED CUCKOO *Coccyzus melacoryphus*
One observed at close range for several minutes on 18 and 25 April 1999, at hacienda San Francisco, 15 km north-west of Ibarra, Imbabura, at 2,300 m. Identification was initially uncertain, as the bird appeared to have a whiter throat like a Mangrove Cuckoo *C. minor*. Hilty (2003) remarked on the striking similarity between the two, though *C. minor* is smaller with a black bill and plain brown upperparts. However, *C. minor* is unknown in Ecuador, with the nearest recent record being from extreme north-east Colombia (Strewe & Navarro 2004), and is very rarely recorded away from coastal mangrove. Otherwise, the combination of grey cap, distinct black mask and rich buff underparts does not recall any other species in Ecuador. On 25 April, with R. Jonsson, playback of both species was performed. That of Dark-billed Cuckoo elicited a dramatic response, confirming the identification.

The status of the species in Ecuador is complex and poorly understood. In eastern Ecuador it is an uncommon to locally fairly common austral migrant, but in the west is known only from a few specimens and several sight reports that are believed to pertain to austral migrants, but there is apparently a resident population in the extreme south-west. Recorded mostly below 1,000 m, occasionally to at least 1,900 m and sometimes even higher (Ridgely & Greenfield 2001, 2006); away from the south-west there are very few records, the nearest from Quito. This high-elevation sighting represents a new provincial record and an 80 km northerly range extension.

BLACK-THROATED BRILLIANT *Heliodoxa schreibersii*
A female was observed by myself and five other observers at midday, feeding on flowers in a large patch of *Wercklea* sp. (Malvaceae), 5 km south of Baeza, on 8 July 2002, at 1,900 m. The combination of curved bill, dark underparts, with an obvious

buff malar is unique on the east slope. This hummingbird is rare to uncommon, and seemingly local, in lower growth of humid forest in the eastern lowlands, and in foothill forest at the base of the Andes. Recorded mostly below 1,250 m, locally in the south-east to 1,450 m in the Cordillera del Cóndor near Chinapintza (Ridgely & Greenfield 2001, 2006), this sighting represents a significant altitude extension and a new foodplant species (Heynen 1999a).

AMETHYST-THROATED SUNANGEL *Heliangelus amethysticollis*
During a bird survey of volcán Sumaco, an adult male was seen well on 18 November 2003 at two separate sites near the crater lake 10 km south-east of the summit, at 2,450 m. No other hummingbird on the east slope at this altitude possesses the unmistakable combination of a pink gorget and white pectoral band. Uncommon to locally fairly common at the borders of montane forest and in adjacent clearings, in the subtropical and lower temperate zones, on the east slope of the Andes in southern Ecuador, the species was previously recorded only from Morona-Santiago (Gualaceo–Limón road and Cordillera de Cutucú) and Zamora-Chinchipe, at 1,900–2,700 m (Fjeldså & Krabbe 1990, Heynen 1999b, Ridgely & Greenfield 2001, 2006). My record constitutes a 210 km northerly range extension and a new record for Napo province.

HOARY PUFFLEG *Haplophaedia lugens*
One observed by myself, P. Herrera V., G. George and J. Brooks on 27 April 2005, at a previously known territory at 1,800 m in a steep, forested, stream valley at Mindo Loma, 7 km north-east of Mindo, Pichincha. It was feeding on flowers of *Axinaea* (Melastomataceae), *Palicourea* (Rubiaceae) and *Besleria* (Gesneriaceae). Uncommon in the lower and middle growth of montane subtropical forest on the west slope of the Andes in western Pichincha and in south-west Colombia (Ridgely & Greenfield 2001), this Chocó endemic is considered Near Threatened due to severe deforestation within its small range (BirdLife International 2005). Whilst known to feed on *Palicourea* and *Besleria* (Collar *et al.* 1992, Heynen 1999c, Matheus 2002), *Axinaea* is a new foodplant.

UNDULATED ANTPITTA *Grallaria squamigera*
On 27 June 2002 an adult was observed at 2,200 m on the Guacamayos trail, 6 km south-east of Cosanga, Napo, for *c.*5 minutes at *c.*15 m distance, foraging leisurely in the middle of the trail. Good light conditions, as well as the bird's proximity, afforded an unmistakable view of the grey cap concolorous with the grey back, and large whitish loral area and dark submalar. Not previously recorded from the Guacamayos ridge or San Isidro area (M. Lysinger pers. comm.). A *G. squamigera* was tape-recorded on 13 April 2004 at 2,770 m, 2.5 km south-east of the summit of volcán Sumaco, near Pavayacu on the north side of the saddle at the headwaters of río Suno. The shorter-duration song (5–6 seconds), which was repeated six times per minute, is diagnostic of *G. squamigera* rather than Giant Antpitta *G. g. gigantea*,

which has a significantly longer song (eight seconds) (Krabbe & Schulenberg 2003) and, on the east Andean slope of Ecuador, occurs only at 2,000–2,400 m. Records from the eastern cordillera are apparently more frequent than from inner or west-facing slopes. The only previous record from the vicinity is from upper Sumaco (Chapman 1926). These represent the easternmost records in Ecuador and the first for Orellana province.

EASTERN KINGBIRD *Tyrannus tyrannus*
Six seen well along the Cuenca–Molleturo highway, 15 km south-east of Puerto Inca, Guayas province, at 800 m, on 8 October 2006. There are a few records of transients in north-western Ecuador, the furthest south from Tinalandia (P. Coopmans *in* Ridgely & Greenfield 2001). My record is 270 km further south. Elsewhere on the Pacific slope of central and southern South America there are relatively few records, but small numbers occur in the coastal lowlands of western Peru, south to Mollendo in Arequipa (Ridgely & Tudor 1989, Clements & Shany 2001), and there are sight reports of vagrants in Región I and II in northern Chile with one from central Chile (Jaramillo 2003).

MOSS-BACKED TANAGER *Bangsia edwardsi*
One at 1,650 m on 15 December 2001, 8 km north-northeast of Mindo, beyond Reserva Pachijal and hostería Ñanca Jatunmi. This highland Chocó endemic is locally uncommon to common in montane forest, forest borders and second-growth woodland in foothills on the west slope of the Andes in north-west Ecuador (Ridgely & Greenfield 2001). This is a significant altitudinal record, as the species was previously only known to 1,100 m in this area. There is one older record from 1,700 m in Carchi (Ridgely & Greenfield 2001). My record is near the upper río Pachijal Valley, an important relict forest corridor for several lowland Chocó endemics, which may be moving upslope in response to recent deforestation in the lowlands.

LARGE-BILLED SEED FINCH *Oryzoborus crassirostris*
Three males and a female near sea level, on 10 January 2005, at hacienda La Ciénega, 15 km north of Pedernales on the Cojimíes Peninsula, northern Manabí, were observed through a telescope at *c.*50 m range for *c.*5 minutes. They were perched in a leafless tree in a dry, grassy, open area. According to the owner of the hacienda, the area is inundated during particularly wet years. *O. crassirostris* is rare to uncommon and very local in the lowlands of eastern and western Ecuador. In the west, it is known from only five localities: El Placer (Esmeraldas), Lita (Imbabura), Babahoyo (Los Ríos), Santa Rosa (El Oro) and Cerro Blanco (Guayas) (Ridgely & Greenfield 2001, 2006, Krabbe & Nilsson 2003). The nearest records are from El Placer, Esmeraldas (in 1987), 170 km west-northwest, with a 19th-century record from Babahoyo, 235 km south-west of Cojimíes (Ridgely & Greenfield 2001). My record is a significant range extension and a new provincial record. Currently considered Least Concern as its numbers appear to be increasing in Colombia

following deforestation (BirdLife International 2005), but it was previously listed as Near Threatened due to frequent capture for the cagebird trade (Collar *et al.* 1992, 1994). Its congeners, particularly *O. angolensis* and *O. maximiliani* are highly valued songsters and a culture of trainers and singing competitions has developed in Brazil (Sick 1993). In Ecuador, because of its evident rarity, the species is still considered Near Threatened (Ridgely & Greenfield 2001, Ribadeneira 2002).

BAND-TAILED SIERRA FINCH *Phrygilus alaudinus*

A male was photographed at 3,800 m on a roadside fencepost near the upper río Chimborazo, on the south side of volcán Chimborazo, on 29 January 2005. Band-tailed Sierra Finch is uncommon and somewhat local in open, arid highlands and was previously recorded only to 3,000 m in Ecuador (Ridgely & Greenfield 2001, 2006), but in Peru there are records to 3,500 m (Clements & Shany 2001), and to 4,100 m in southern Peru and Bolivia (Fjeldså & Krabbe 1990).

RED-BREASTED BLACKBIRD *Sturnella militaris*

An adult male was observed well for *c.*10 minutes adjacent to the Lago Agrio highway, 5 km north-east of Baeza on 22 January 2007, at 1,855 m. Known in eastern Ecuador to 400 m (Ridgely & Greenfield 2001, 2006), in Venezuela to 950 m (Hilty 2003) and in Colombia to 1,600 m (Hilty & Brown 1986). The species is increasing and spreading, often colonising newly deforested areas (Ridgely & Tudor 1989).

Acknowledgements

I express my gratitude to the tour participants of Andean Birding as well as to Carmen & Irene Bustamante of Bird Ecuador for providing the opportunity to make these observations. Proyecto Gran Sumaco, KfW Development Bank and Fundación para la Educación y Desarrollo Integral (FUNEDESIN) provided funding and logistical support for the Sumaco survey. Nathan Rice proffered details concerning specimen records. Jonas Nilsson offered critical remarks on the manuscript and support. Juan Freile refereed the manuscript, whilst Sherry Vogt provided enduring understanding, support, field companionship and fine cooking.

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Address: Andean Birding, Salazar Gómez E-1482 y Eloy Alfaro, Quito, Ecuador, e-mail: charlie@andeanbirding.com

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First record of Tyrannine Woodcreeper *Dendrocincla tyrannina* for Bolivia

by Christopher J. Vogel & Oswaldo Maillard Z.

Received 12 July 2006

Two specimens of Tyrannine Woodcreeper *Dendrocincla tyrannina* were collected, on 22 November 2001, in Área Natural de Manejo Integrado Nacional Apolobamba, Bolivia, dpto. La Paz, prov. Franz Tamayo, near the río Palcabamba (14°49'S, 68°56'W), at *c.*2,500 m. The specimens were mist-netted in tall, humid second-growth woodland bordering a cleared pasture, adjacent to primary montane forest, and were prepared as study skins (American Museum of Natural History [AMNH] 834016, 834017).

The humid broadleaf evergreen forest in this area has been cleared and has regenerated at various periods in the past, creating a patchwork of mossy, bromeliad-laden forest at various stages of succession, interspersed with clearings, likewise of varied age. The largest trees are *c.*1.5 m dbh, with crowns approaching 30 m. A dense undergrowth of bamboo (*Chusquea* spp.), ferns and terrestrial bromeliads is rampant in more recently disturbed areas and in areas of slightly more mature second growth; old landslides also contribute to the mosaic. Tall forest ends rather abruptly at a variable and artificial treeline, usually at *c.*2,800–3,000 m. The *Puya* spp. and tall-grass-dominated puna (Poaceae) above the treeline is maintained by local residents through periodic burning.

The two Tyrannine Woodcreepers were caught in different mist-nets almost simultaneously. The nets were separated by 50 m; one was in tall second-growth forest, the other a few metres out in a clearing. Both specimens had skulls completely ossified. The male (AMNH 834016) was moulting p6, in addition to being in the process of renewing the central rectrices, with light body moult (on the upper breast); it also had some subcutaneous fat, and its largest testis measured 10 × 5 mm. The female (AMNH 834017) likewise had a completely ossified skull, a granular ovary that measured 7 × 5 mm, but had no fat or moult. The skull ossification, as well as bill colour (dark brown with a dull reddish-chestnut or brick-red cast, paler at the base, rather than blackish), indicate that both were adults (Willis & Oniki 1995). The stomach contents of both individuals consisted exclusively of arthropods.

On 28 November, another, lone Tyrannine Woodcreeper was seen quietly foraging on an exposed bare tree trunk in an old treefall. This was the only other record of Tyrannine Woodcreeper at our study site, which was worked for 14 days.

The specimens were identified using previously published data (Fjeldså & Krabbe 1990, Ridgely & Tudor 1994) and museum specimens, and CJV has prior field experience with the species. These birds differ significantly from the named subspecies in *D. tyrannina* (Marantz *et al.* 2003), but whether this represents individual, clinal, specific or subspecific variation is presently under review (Maillard & Vogel in prep.).

Of interest not only due to the timing but proximity to the present record is that, on 1 December 2001, A. Bennett Hennessey sound-recorded a Tyrannine Woodcreeper in dpto. La Paz. Four minutes of audio tape were obtained at an elevation of 2,450 m, near Tokoaque, in Madidi (A. B. Hennessey *in litt.* 2006). This sound-recording compliments the present record rather well, as we were unable to obtain recordings during our stay near the río Palcabamba. Hennessey's recording is soon to be published in a DVD of birds of the region.

Although Fjeldså & Krabbe (1990) speculated that Tyrannine Woodcreeper might occur in Bolivia, the species has previously been recorded only as far as southern Peru, with the southernmost records being from dpto. Cuzco (Fjeldså & Krabbe 1990, Marantz *et al.* 2003). Thus, the current specimens represent a southward extension of *c.*500 km, in addition to being the first record from Bolivia.

The Cordillera Apolobamba, however, also has biogeographic affinities with the cordilleras of southern Peru (Vilcanota, Carabaya), more so than the Bolivian Cordilleras (Cordillera La Paz, Cordillera Cochabamba) to the south (CJV unpubl.). Recent surveys have found several species and subspecies thought to be more characteristic of points further north than Bolivia, such as Taczanowski's Tinamou *Nothoprocta taczanowskii* (Vogel *et al.* 2001), Puna Thistletail *Schizoeaca helleri* (of the undescribed form originally discovered in dpto. Puno, Peru; Remsen 2003), Streak-backed Canastero *Asthenes wyatti* and the south Peruvian (non-collared) subspecies of Hooded Mountain-tanager *Buthraupis montana saturata*, all of which reach or almost reach their southern range limit in the Apolobamba. Tyrannine Woodcreeper, considered uncommon throughout its range (Stotz *et al.* 1996) and rare and local in Ecuador (Ridgely & Greenfield 2001), may represent another species with this distribution pattern, or may well occur (as it does everywhere in its range, and as suggested by the present spate of records) at low density (Willis & Oniki 1995) more extensively in the Yungas of La Paz, where appropriate elevations have not been sampled thoroughly. It should also be looked for in similar humid, mid-elevation forests of the Bolivian Andes in dptos. Cochabamba and Santa Cruz.

Acknowledgements

We thank Susan E. Davis for organising the expedition, which was funded by the Center for Biodiversity and Conservation, American Museum of Natural History (AMNH), and the Center for Environmental Research and Conservation, Columbia University, New York, and led by Dr James Aparicio E., of the Colección Boliviana de Fauna, La Paz, Bolivia. We thank Nick Acheson for his assistance in the field and Melina Laverty for her editorial acumen. Thanks also to Paul R. Sweet, AMNH Dept. of Ornithology, and J. V. Remsen, Louisiana State University Museum of Natural Sciences, for their usual helpfulness. We also acknowledge the cooperation of the Servicio Nacional de Áreas Protegidas and the invaluable help of the guards and officials of Parque y Área Natural de Manejo Integrado Nacional Apolobamba, as well as the Dirección General de Biodiversidad y al Servicio Nacional de Áreas Protegidas de Bolivia who graciously provided the necessary permission to collect specimens.

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Addresses: Christopher J. Vogel, P.O. Box 319, Cape May Point, NJ 08212, USA, e-mail: glaucidium@yahoo.com. Oswaldo Maillard Z., Museo de Historia Natural Noel Kempff Mercado, Universidad Autónoma Gabriel René Moreno, Av. Irala 565, C.P. 2489, Santa Cruz de la Sierra, Bolivia.

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Breeding records from the north-east Andean foothills of Ecuador

by Harold F. Greeney & Rudolphe A. Gelis

Received 13 July 2006

Recent years have witnessed an increase in Ecuadorian ornithological publications (Freile 2005). From the early work of Marchant (1959, 1960) in the south-west, to more recent studies there and elsewhere in Ecuador (e.g. Marín & Carrión 1994, Best *et al.* 1996, Greeney *et al.* 2004, Greeney & Nunnery 2006), we are slowly expanding our knowledge of the breeding patterns of Ecuador's mainland avifauna. One area which seems particularly understudied ornithologically, especially with respect to natural histories, is the foothills of the east Andean slope. A few recent contributions have added to our knowledge for certain species (Gelis *et al.* 2006a,b, Greeney *et al.* 2006, Vaca *et al.* 2006), but we still lack sufficient data for proper analysis of seasonality. Here we begin to rectify this with observations on 35 species from the Andean foothills of prov. Napo, north-east Ecuador.

We made all observations opportunistically, during the course of other field work in 2002–06, and thus on their own they are not useful to assess seasonality. We hope, however, that these data will form the framework with which future workers may begin to compile breeding information for this area. We made observations at elevations around 1,150 m in the community-owned reserve of Mushullacta, adjacent to the Galeras sector of Sumaco-Napo Galeras National Park (NG), along the Tena–Loreto road at elevations of 1,000–1,400 m (LR), on and around the slopes of Volcán Sumaco at elevations of 1,650–1,750 m (SU), in the vicinity of Tena at 300–450 m (TE), at Hakuna Matata Lodge (800 m) near Archidona (HK), and in areas immediately surrounding Archidona (AR) at 600–750 m. Taxonomy follows Ridgely & Greenfield (2001).

Species accounts

BLACKISH NIGHTJAR *Caprimulgus nigrescens*

On 29 March 2005, at 1,350 m on LR, we flushed an adult male off a single egg at 12.00 h. The egg was pale brown, heavily marked with dark brown and lavender blotches and black squiggles. It measured 25.9 by 20.1 mm and weighed 5.654 g.

Eight days later, at 17.15 h, the egg weighed 5.375 g. On 10 April there was no sign of the adult or egg. On 5 March 2006 we discovered two adults roosting at the same location at 16.30 h. Breeding accounts from several parts of the species' range have been published (Beebe *et al.* 1917, Haverschmidt 1968, Cleere & Ingels 2002).

GREY-BREASTED SABREWING *Campylopterus largipennis*
On 29 November 2001, on the LR at *c.*1,100 m, we found a nest with two partially incubated eggs, from which we flushed an adult female. Both eggs were immaculate white and they measured 15.8 by 10.7 and 15.6 by 10.4 mm. The nest was a neat cup attached at the side to the thin horizontal branch of a small Melastomataceae sapling. The nest was 1.3 m above a small stream and appeared to have been constructed on an older nest. It consisted mostly of moss and soft pale brown 'seed' down (especially in the inner parts), with an outer decoration of lichens, bound together and attached to the branch and old nest with copious spider webs. It measured 7 cm wide by 5 cm tall outside, with an inner cup 4 cm in diameter and 3.5 cm deep. Previously described from Brazil (Ruschi 1973 *in* Hilty & Brown 1986), the nesting of this Amazonian hummingbird is still poorly known.

SPOTTED BARBTAIL *Premnoplex brunnescens*
On 3 December 2002, at 1,700 m at SU, we discovered a nest with two partially developed eggs. It was attached by the back side to a mossy rock wall, 80 cm from a small waterfall and 1.4 m above a small stream. Two days later we found a second nest, also with two partially developed eggs, suspended by several thin vines only 80 cm above a small stream.

On 30 March 2005, at NG, we discovered a third nest with two well-feathered nestlings, seemingly ready to fledge. The next day the nest was empty and undisturbed, and we presume both had fledged. This nest was 1.1 m up, only 30 cm from a small stream. It was attached at the top to a rock ledge. A great deal of faecal matter had accummulated on the rock just below the nest. On 31 March we found a fourth nest with two eggs. This nest was 1 m above a small stream, attached by the back side to a rock face. On 1 April, at the same location we found a fifth nest with a single nestling, whose primary pin feathers had broken their sheaths *c.*2 days earlier. This nest was built into a large clump of epiphytes 1.7 m above a small stream. Its form was completely obscured and only the entrance was visible. Immediately adjacent to it, sharing a wall, was a second, empty but intact nest. Directly below was a large boulder emerging from the water on which had accumulated a large number of faecal sacs. While we handled the nestling it produced a faecal sac containing remnants of a snail shell. A sixth nest, with two partially developed eggs, was found on 11 April, also at NG. This was suspended by the top from three thin (*c.*5 mm) vines over a small stream, 1.5 m above ground beside a small waterfall. We found another nest on 22 March 2006 at SU, at the same location as the previous two. This contained at least one nestling and we observed two adults approach with arthropods in their bills, one of which fed the

nestlings a 1–2 cm adult lepidopteran. The nest was constructed in the root mass of an overturned tree, 3 m above a small stream. Its form was obscured by the surrounding moss and roots so that only the entrance was visible. This nest was only 1.5 m from the site of the first nest described above, which was no longer present.

All eight eggs were immaculate white. Mean (± SD) measurements were 22.0 ± 0.9 by 16.9 ± 0.3 mm. Despite the variety of situations, all nests were thick, tough mossy balls, with a downward-facing tubular entrance, and lined with pale fibres. Of the eight nests (including the inactive structure adjacent to the fifth), six were attached firmly such that the orientation of the entrance could not be moved, whilst the other two hung freely. Overall they were similar in appearance and showed similar variation in placement to previously described nests (Skutch 1967, Marín & Carrion 1994, Greeney & Nunnery 2006).

LINED ANTSHRIKE *Thamnophilus tenuepenctatus*

On 29 March 2005, at *c.*1,250 m at LR, we flushed a male antshrike beside the road incubating two well-developed eggs, both of which were pipped. The eggs were white with dark red blotching and narrow red and lavender flecking concentrated at the larger end. They measured 22.2 by 16.3 and 22.9 by 16.2 mm. The nest was a tightly woven cup of pale rootlets, leaf petioles and a few black fungal rhizomorphs. It was decorated on the outside with sparse moss and slung between the arms of the horizontal fork, 2.2 m above ground in a small *Acalypha* (Euphorbiaceae) shrub. The cup was slightly oblong, measuring 5 by 6 cm internally and 7.5 by 10 cm externally. It was 5 cm deep inside and 5.5 cm tall outside, with an additional 7 cm of hanging moss. When we returned on 6 April, the nest was torn down. This appears to be the first description of the nest of Lined Antshrike.

OLIVE-STRIPED FLYCATCHER *Mionectes olivaceus*

We found two nests at NG, between 31 March and 5 April 2005. Both were mossy, teardrop-shaped structures attached to thin vines which were themselves attached both above and below the nest. They were 0.4 and 1 m above the ground and both were thickly lined with pale white and buff-coloured seed down. One measured *c.*14 cm tall by 12 cm wide and 12 cm front to back. In addition, it had a 28-cm extension of moss above and a 14 cm tail-like curtain of moss below. The side entrance had a 3.5-cm overhang of moss and measured 4 cm wide by 3 cm tall. Inside, the chamber measured 9.5 cm tall by 5.5 cm wide, with a 3 cm-deep cup. The thin vine to which it was attached measured just 2.5 mm in diameter. We do not know the fate of one nest and at the second all three eggs hatched but the nestlings disappeared shortly after.

Both nests contained three all-white eggs which measured (± SD) 19.9 ± 0.2 by 15.4 ± 0.1 mm. The eggs were weighed to the nearest 0.001 g upon discovery and subsequently, four days later at one nest, and six days later at the second. Five eggs lost mass at a rate of 0.94 ± 0.16% of their original mass per day. Three eggs were weighed twice after pipping had occurred, with roughly 24 h between weighings. These lost mass at a rate of 3.0 ± 1.0% per day. One egg was pipped for at least two

days before it hatched. Using a mean 19 days of incubation for the genus (Fitzpatrick 2004), with pipping 1–2 days prior to hatch, we estimate 20–22% mass-loss for eggs during incubation.

Two nestlings weighed 2.3 and 2.2 g on the day of hatching. Newborn nestlings had pink skin with sparse silvery grey down. Their feet were dusky grey-pink and their cloacas were undifferentiated from the surrounding skin. Bills were dull yellow with bright white gapes and mouth linings similar in colour to their skin.

BRIGHT-RUMPED ATTILA *Attila spadiceus*

On 30 June 2004, outside TE, we found a nest with two addled eggs and a single newly hatched nestling. It was a bulky cup of green moss saddled on a broad beam against the side of a building, 4 m above ground. It did not appear to have a differentiated lining. The eggs were buffy orange heavily spotted and flecked, mostly at the larger end, in various shades of brown and orange. They measured 22.5 by 17.9 and 23.1 by 18.3 mm. The nestling's right tarsus measured 8.7 mm. Its skin was dark pinkish, with yellow legs and cloaca, and a bright yellow mouth lining and gape. Dorsally it was covered with fairly dense grey-brown down, which arose in clumps that were paler near their bases, giving the nestling a distinctly sun-dappled appearance as recently described for Ochraceous Attila *A. torridus* (Greeney 2006). Skutch (1971) described the species' natural history in Costa Rica, but this appears to be the first breeding record for Ecuador.

GOLDEN-WINGED MANAKIN *Masius chrysopterus*

Between 31 March and 11 April 2005, at NG, we found four active nests. Two contained two partially incubated eggs each, and the others single, undeveloped eggs. All were pale to dark olive-tan, with heavy brown blotching, usually forming a ring around the larger end. Mean (± SD) measurments of five eggs were 20.8 ± 0.8 by 14.5 ± 0.4 mm.

All nests were shallow, sparse rootlet cups, bound together and to the substrate with spider webs, and lightly decorated on the exterior and rim with pale green moss. This generally dangled below the cups forming a 'tail' which helped obscure the nest's outline. We measured three nests to the nearest 0.5 cm. The inner diameter of the cup was 5 cm in one and 4.5 cm in the others. Otherwise, cup measurements were identical, each being 2.5 cm deep inside and 6.5 cm wide by 3.5 cm tall outside. The 'tails' of moss were 9, 4, and 5 cm long, with some stray pieces dangling as far as 30, 27 and 48 cm. Mean diameter of the supporting forked branches was 8 ± 1 mm, and the six 'arms' of the forks measured 4.8 ± 1.2 mm. Two nests were in Rubiaceae saplings, one in a Solanaceae, and the final in an unidentified sapling. Mean nest height was 2.2 ± 1.9 m, and mean overall sapling height was 3.4 ± 1.8 m. Three nests were located immediately adjacent to streams, and the fourth was over 40 m from the nearest stream but was situated in a 10 m-diameter depression, roughly 3 m deep. The nests were similar to the only other described nest from Colombia (Hilty & Brown 1986), but this appears to be the first detailed description of the nest and eggs of this species.

Additional records

The following records of breeding are presented in abbreviated format as: common name, scientific name, date and location (evidence, details). B = building; I = incubating; N = nestling; F = fledgling; CM = carrying material, but nest not seen; AN = active nest of unknown stage.

Speckled Chachalaca *Ortalis guttata*, 2 July 2004 TE (F); **Cobalt-winged Parakeet** *Brotogeris cyanoptera*, 17 September 2004 TE (F); **Buff-tailed Sicklebill** *Eutoxeres condamini*, 10 January 2002 TE (B, 1 m up); **Spectacled Prickletail** *Siptornis striaticollis*, 11 December 2002 SU (B); **Sharp-tailed Streamcreeper** *Lochmias nematura*, 3 December 2002 SU (F, adult fed fledgling 7-cm earthworm); **Scale-backed Antbird** *Hylophylax poecilinota*, 30 March 2005 NG (N, one nestling); **Scale-crested Pygmy-tyrant** *Lophotriccus pileatus*, 29 March 2005 NG (I, one egg); **Short-tailed Antthrush** *Chamaeza campanisoma*, 3 April 2005 NG (N, two nestlings); **Common Tody-flycatcher** *Todirostrum cinereum*, 23 February 2004, LR (N, both adults feeding); **Great Kiskadee** *Pitangus sulphuratus*, 23 November 2003 LR (B, just beginning); **Social Flycatcher** *Myiozetetes similis*, 3 October 2003 AR (N), 12 November 2003 HM (F), 17 September 2004 TE (AN), 18 September 2004 (B), 19 February 2005 LR (B); **Golden-crowned Flycatcher** *Myiodynastes chrysocephalus*, above AR at 1,750 m (N, four nestlings, one dead, 1.9 m up on cliff); **Grey-tailed Piha** *Lathria subalaris*, 13 April 2005 NG (CM); **Spotted Nightingale-thrush** *Catharus dryas*, 31 March 2005 NG (N, two nestlings); **Pale-eyed Thrush** *Platycichla leucops*, 2 April 2005 NG (N, two nestlings); **Black-billed Thrush** *Turdus ignobilis*, 23 November 2003 LR (B, 3 m up), 19 February 2005 SU (I, two eggs, 2.1 m up); **Blue-and-white Swallow** *Notiochelidon cyanoleuca*, 3 October 2003 LR (N); **Grey-breasted Wood-wren** *Henicorhina leucophrys*, 3 December 2002 SU (I, two eggs); **Bananaquit** *Coereba flaveola*, 12 November 2003 TE (B and F); **White-lored Euphonia** *Euphonia chrysopasta*, 12 November 2003 TE (B); **Blue-necked Tanager** *Tangara cyanicollis*, 12 November 2003 TE (F), 23 February 2004 LR (two pairs with F); **Yellow-bellied Tanager** *T. xanthogastra*, 12 November 2003 HM (F); **Swallow Tanager** *Tersina viridis*, 19 February 2005 LR (B); **Blue-grey Tanager** *Thraupis episcopus*, 30 March 2005 NG (B); **Silver-beaked Tanager** *Ramphocelus carbo*, 5 September 2005 AR (two B); **Lesser Seed-finch** *Oryzoborus angolensis*, LR (B, only female, 0.5 m up); **Yellow-rumped Cacique** *Cacicus cela*, 10 January 2004 TE (colony at B and I stage); **Russet-backed Oropendola** *Psarocolius angustifrons*, 12 November 2003 HM (N, adult feeding unidentified nestling bird to young), 19 February 2005 SU (colony with nests B and others N).

Acknowledgements

Juan Carlos Calvachi, Mitch Lysinger, Caroline Dingle and Niels Krabbe generously provided unpublished observations included here. We are grateful to Juan Freile for his review of the manuscript. The owners of Hakuna Matata Lodge, Cabañas San Isidro, the community of Mushullacta, and the park guards of Sumaco National Park provided logistical support. John V. & the late Ruth Ann Moore, as well as Matt Kaplan, have generously supported HFG through grants to the Population Biology Foundation.

Field work by HFG was supported in part by a Rufford Small Grant, a Pamela & Alexander F. Skutch Award, and the Hertzberg Family Foundation. This study was further facilitated by Tim Metz, Jay Peltz and Lynx Edicions, Spain. We are ever grateful for the continued support of the PBNHS of our natural history interests. This is publication no. 109 of the Yanayacu Natural History Research Group.

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Address: Yanayacu Biological Station & Center for Creative Studies, Cosanga, Napo, Ecuador; c/o 721 Foch y Amazonas, Quito, Ecuador, e-mail: revmmoss@yahoo.com

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Fixation of the type species and revalidation of the genus *Dendroplex* Swainson, 1827 (Dendrocolaptidae)

by Alexandre Aleixo, Steven M. S. Gregory & John Penhallurick

Received 17 July 2006

Since 1951, various authors (Peters 1951, Clements 2000, Marantz *et al.* 2003, Dickinson 2003) have placed the taxa based on *Oriolus picus* J. F. Gmelin, 1788 (Straight-billed Woodcreeper), and *Dendrornis kienerii* Des Murs, 1856 (Zimmer's Woodcreeper), in the genus *Xiphorhynchus* Swainson, 1827 (Dendrocolaptidae). Earlier authorities (Sclater 1890, Hellmayr 1925, Zimmer 1934, Todd 1948) used *Dendroplex* Swainson, 1827, for these taxa. Swainson's original characterisation of *Dendroplex* (1827: 354) provided only a brief diagnosis of the new taxon ('Rostrum rectissimum. Alæ mediocres, rotundatæ; remigibus 3^{tiá}, 4^{tá}, et 5^{tá} longissimis'), and no reference to a type species, as he explicitly acknowledged being unsure whether the specimen upon which he based the new genus, had already been described as a species or not. He further stressed the diagnostic bill shape of the new genus and its close affinity with other Dendrocolaptid genera, stating: 'The living bird has all the manners of a *Picus*. Except in its perfectly straight bill, it differs not from *Dendrocolaptes*'.

Ten years later, Swainson (1837: 313–314) provided essentially the same diagnosis of the original description: 'Bill moderate, very straight, perfectly conic in profile; the sides much compressed.' This time the diagnosis was accompanied by a depiction of the straight culmen and lateral compression (Fig. 1). But, at the end of the characterisation, Swainson added: 'The scansorial type *D. guttatus* Spix i, 91, f. 1', which refers to fig. 1 on pl. 91 in Spix (1824). The term scansorial here relates to Swainson's quinarian concept of re-occurring types within the animal kingdom; nevertheless, the fact remains that he included a single nominal species, thereby satisfying the requirements of Art. 69.3 for designation by subsequent monotypy (ICZN 1999). In his review of the Dendrocolaptidae, Hellmayr (1925: 288) pointed out that Swainson's diagnoses of 1827 and 1837, and bill outline (Fig. 1), correspond to the characters of *Oriolus picus*, though the only species mentioned (*D. guttatus* Spix i, 91, f. 1) 'belongs to the genus *Xiphorhynchus* Swainson'. Hellmayr continued that Swainson obviously followed Lesson (1830: 313) in misidentifying Spix's plate with *Oriolus picus* which, he believed, had to be regarded as the genotype of *Dendroplex*, being the only species then known with these generic characters. Hellmayr (1925) referred readers also to Gray (1840: 17), and Lafresnaye, *Rev. Mag. Zool.* (2)2, 1850, p. 959, where they merely grouped *O. picus* J. F. Gmelin, 1788, in *Dendroplex* without providing valid genus type designations.

Following Hellmayr (1925), Peters (1951: 36) recognised that '*D. guttatus* Spix i, 91, f. 1' depicts a bird now known as *Xiphorhynchus ocellatus* (Spix 1824), and stressed that under Opinion 65 (Schenk & McMasters 1948: 54) the case of misidentification had to be formally presented to the ICZN for ruling, and that until a decision was reached, *Xiphorhynchus ocellatus ocellatus* = *Dendrocolaptes ocellatus* Spix 1824 must continue as the type of *Dendroplex*.

Aleixo (2002) demonstrated, using molecular data, that the genus *Xiphorhynchus* (*sensu* Peters 1951) is paraphyletic, and that the sister taxa *X. picus* = *Oriolus picus* J. F. Gmelin, 1788, and *X. kienerii* = *Dendrornis kienerii* Des Murs, 1856, are the only species which do not belong to a clade with the remaining *Xiphorhynchus* species. He suggested that they might be grouped in a different genus, in which case the name *Dendroplex* Swainson, 1827, would be available if problems with its type species designation could be resolved.

The fourth edition of the *International code of zoological nomenclature* (ICZN 1999) states:

> 67.2.2. If a nominal genus or subgenus was established before 1931… without included nominal species…, the nominal species that were first subsequently and expressly included in it are deemed to be the only originally included nominal species.

Taken in isolation, this Article would indicate that the type of *Dendroplex* Swainson, 1827, must be '*D. guttatus* Spix, i, 91, f. 1' = *Dendrocolaptes ocellatus* Spix, 1824. But the latest edition of the Code now permits a misidentified type species to be set aside without the requirement of a ruling from the Commission. Art. 67.9 states: 'If a validly fixed type species is later found to have been misidentified, the provisions of Article 70.3 apply.' Art. 70.3 states:

> **Misidentified type species**. If an author discovers that a type species was misidentified… the author may select, and thereby fix as type species, the species that will, in his or her judgment, best serve stability and universality, either
>
> 70.3.1. the nominal species previously cited as type species [Arts. 68, 69], or
>
> 70.3.1. the taxonomic species actually involved in the misidentification. If the latter choice is made, the author must refer to this article and cite together both the name previously cited as type species and the name of the species selected.

We advocate the conservation of *Dendroplex* Swainson, 1827, as a valid taxon. The following evidence supports Hellmayr's (1925) interpretation that Swainson's (1837) identification of '*D. guttatus* Spix, i, 91, f. 1' as the type was a case of misidentification, and that *D. picus* = *Oriolus picus* J. F. Gmelin, 1788, was the taxon upon which Swainson actually based *Dendroplex*.

Figure 1. Bill outlines (Swainson 1837: 313, fig. 281e) accompanying Swainson's diagnosis of *Dendroplex* and reference to '*D. guttatus* Spix, i, [pl.] 91. f. 1.' as the genus type (Swainson 1837: 314). The illustration refers unambiguously to the only species in the entire family Dendrocolaptidae known to possess this particular bill shape: *Xiphorhynchus picus* = *Oriolus picus* J. F. Gmelin, 1788.

Swainson (1827: 354) was unsure whether the taxon on which he based *Dendroplex* had been described. Ten years later, when he next cited *Dendroplex* (Swainson 1837: 313–314), the original diagnosis was maintained and even illustrated in detail (see Fig. 1), but '*D. guttatus* Spix, i, [pl.] 91. f. 1.' was mentioned as belonging to the genus apparently in accordance with Lesson (1830: 313), who a few years earlier explicitly equated '*D. guttatus* Spix, pl. 91' with '*Oriolus picus* Gm.' Lesson's entry reads: '5. PICUCULE TALAPIOT; *Dendrocolaptes guttatus* Spix, pl. 91. *Oriolus picus*, Gm.; *Gracula picoides*, Shaw; Enl., 605.'

'Enl., 605' refers to 'Le Talapiot' Daubenton, 1770–83, Planches enluminées d'histoire naturelle, *in* Buffon, *Histoire naturelle des oiseaux*, pl. 605 (Cayenne), in turn the basis of J. F. Gmelin's *Oriolus picus*. *Gracula picoides* Shaw, 1809, *General zoology, or systematic natural history*, 7, no. 2, p. 476, was merely a new name for *Oriolus picus* J. F. Gmelin, 1788. Lesson's description of the Picucule Talapiot, including as it does 'Bec presque droit, corné', i.e. bill nearly straight, horn-coloured, probably determined Swainson's acceptance of Lesson's treatment.

There is a significant discrepancy between the levels of detail and resolution of the bill outline presented in fig. 281e of Swainson (1837: 313) as diagnostic of *Dendroplex* (see Fig. 1) and that of *D. guttatus* in Spix's plate, chosen by Swainson (1837) as the type of *Dendroplex*. Whilst the latter is poor in resolution and depicts a bird which resembles several taxa currently classified in the genus *Xiphorhynchus*, fig. 281e of Swainson (1837), in contrast, is very well resolved and refers unambiguously to the only species of Dendrocolaptidae known to this day to possess such a bill shape: *X. picus* = *Oriolus picus* J. F. Gmelin, 1788 (Marantz *et al.* 2003).

Hence, following the latest, (fourth) edition of the *International code of zoological nomenclature* (1999), we propose to conserve *Dendroplex* under the following terms:

Genus *Dendroplex* Swainson, 1827

Zool. J., 3, p. 354 (generic characters only).

Type species here fixed (under Art. 70.3 of the Code) as *Oriolus picus* J. F. Gmelin, 1788, misidentified, by subsequent monotypy (Art. 69.3 of the Code) as '*D. guttatus* Spix, 1824' = *Dendrocolaptes guttatus* Spix, 1824 (pl. 91, fig. 1) = *Xiphorhynchus ocellatus* (Spix, 1824) by Swainson, 1837, *Classification of birds*, 2, p. 314.

Thus, those taxa originally described or classified as *Dendroplex* according to Gray (1840), Sclater (1890), Hellmayr (1925), Zimmer (1934), and Todd (1948), but later transferred to *Xiphorhynchus* by Peters (1951), should be returned to *Dendroplex*, which currently contains just two distinct sister biological species: the polytypic *Dendroplex picus* (J. F. Gmelin, 1788) and the monotypic *Dendroplex kienerii* (Des Murs, 1856), as delineated by Marantz *et al.* (2003).

Acknowledgements

A. Aleixo thanks the CNPq/SECTAM joint Regional Development Research Program for a research fellowship (grant no. 35.0415/2004-8). We are grateful to Alan Peterson for his comments relating to this manuscript.

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Addresses: Alexandre Aleixo (corresponding author), Coordenação de Zoologia, Museu Paraense Emílio Goeldi, CP 399, Belém, Pará, Brazil, e-mail: aleixo@museu-goeldi.br. Steven M. S. Gregory, 35 Monarch Road, Northampton NN2 6EH, UK, e-mail: sgregory.avium@ntlworld.com. John Penhallurick, 86 Bingley Crescent, Fraser, ACT 2615, Australia, e-mail: jpenhall@bigpond.net.au

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Reidentification of Ecuadorian specimens of *Pachyramphus rufus* as *P. castaneus*

by Ottavio Janni & Claudio Pulcher

Received 9 October 2006

Cinereous Becard *Pachyramphus rufus* occurs from western Panama through northern Colombia, Venezuela, the Guianas and parts of Amazonian Brazil to north-east Peru (Mobley 2004). It has long been included in the avifauna of Ecuador (Chapman 1926, Ortiz-Crespo *et al.* 1990, Ridgely *et al.* 1998), based on two specimens—a female, the other unsexed—collected in south-east Ecuador at 'Valle del Río Santiago', prov. Morona-Santiago according to Paynter (1993), and 'Valle del Zamora', prov. Zamora-Chinchipe, in 1895, by Enrico Festa (Salvadori & Festa 1899) and held at the Museo Regionale di Scienze Naturali, Turin, Italy. Given the lack of subsequent records from Ecuador, several authors (Ridgely & Tudor 1994, Ridgely & Greenfield 2001, Mobley 2004) have questioned the identification of these specimens, and some (Ridgely & Greenfield 2001, P. Coopmans *in litt.* 2006) have suggested that they refer to Chestnut-crowned Becard *P. castaneus*, based on biogeography and that identification of female *Pachyramphus* was then poorly understood, as evidenced by Zimmer (1936). However, none of these authors examined the specimens and the legitimacy of the Ecuadorian records remained in doubt.

We recently independently examined the relevant specimens (catalogue nos. 1357–58; Elter 1986) and concluded that they are *P. castaneus saturatus*. Specific identification is straightforward, as both show a broad grey stripe behind the eye—including part of the ear-coverts—encircling the nape and separating the rich chestnut crown from the paler rufous lower nape and neck. The grey band is unbroken, but is much narrower on the nape than behind the eye. This grey band is diagnostic of *P. castaneus*, as no other species of *Pachyramphus*, in any plumage, shows it. Further distinctions from *P. rufus* include the richer chestnut crown, distinctly darker and more saturated than the rest of the upperparts (in *P. rufus* the crown is near-concolorous with the remaining upperparts), and a distinct dusky loral stripe (this area is whitish or greyish white on *P. rufus*). Our re-examination of these specimens reveals that there are no valid records of *P. rufus* for Ecuador, and

underlines the importance of avian collections held in Italy (Violani & Barbagli 2003).

Acknowledgements

We thank Giovanni Boano, Ermanno De Biagi, Elena Gavetti and Lisa Levi for providing access to the specimens, and the late Paul Coopmans and Robert Ridgely for encouraging us to examine the material and publish this note.

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Addresses: Ottavio Janni, Via Monte Muto 29, 81016 Piedimonte Matese (CE), Italy, e-mail: coeligena@hotmail.com. Claudio Pulcher, Museo Regionale di Scienze Naturali, Via Giolitti 36, 10023 Turin, Italy, e-mail: cpulcher@libero.it

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The correct name of the Guianan Toucanet: *Selenidera culik* (Wagler) not *S. piperivorus* (Linnaeus)

by Michael Walters

Received 28 June 2007

Pacheco & Whitney (2006) sought to change the names of three Neotropical birds. Two of these may be addressed at a later stage, but this note discusses the case of the bird currently known as *Selenidera culik* (Wagler, 1827), which Pacheco & Whitney sought to replace with *Ramphastos piperivorus* Linnaeus, a name rejected

by Peters (1930) for sufficient reasons. Pacheco & Whitney based their too-briefly worded case on Peters (1948), apparently overlooking the earlier reference. In seeking to claim that Linnaeus' use of *piperivorus* in 1766 was justified and confirmed the identity of his earlier use of the name in 1758, they assumed that, if Linnaeus used a name in different 'editions' of the *Systema Naturae* he must have intended the same taxon, and that these 'editions' represent versions of the same work. In fact, the different 'editions' of the *Systema Naturae* have always, correctly, been treated as separate works for the purposes of nomenclature.

Peters (1930) correctly noted that *Ramphastos piperivorus* Linnaeus, 1758, is unidentifiable: the description '*R*[*amphastos*] *rostro nigro: carina crassissima*', cannot be identified as any known toucan and whilst *R. piperivorus* Linnaeus, 1766, is identifiable with *Selenidera culik*, it is preoccupied by the unidentifiable name of 1758. Unfortunately, Peters (1948) did not cite his earlier paper as a reference either for the toucan family or any of its constituent genera. It was even more misleading not to cite it when rejecting the name *piperivorus*. The paper is referenced only as a footnote on p.83 (where, incidentally, it is misquoted as vol. 48), regarding another unidentifiable species, *R. piscivorus*. Peters' footnote on p.79 is therefore unsatisfactory as it stands, and has clearly misled several authors into believing that he was wrong in considering Linnaeus' name unidentifiable. Nevertheless, Pacheco & Whitney have not produced convincing evidence to negate Peters' decision to reject *Ramphastos piperivorus* Linnaeus, in favour of the earliest available name, *Pteroglossus Culik* Wagler = *Selenidera culik* (Wagler).

Acknowledgements

I am grateful to Edward Dickinson, Normand David, James Jobling and Frank Steinheimer, who read early drafts of this commentary and made valuable contributions.

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Address: 62 Mark Street, Portrush, Co. Antrim BT56 8BU, Northern Ireland, UK e-mail: mpwalters62@btinternet.com

Range extension for Kaempfer's Woodpecker *Celeus obrieni* in Brazil, with the first male specimen

by Marcos Pérsio Dantas Santos & Marcelo Ferreira de Vasconcelos

Received 23 April 2007

Kaempfer's Woodpecker *Celeus obrieni* was described by Short (1973) as a subspecies of Rufous-headed Woodpecker *C. spectabilis* based on a single female, collected by Emil Kaempfer on 16 August 1926, at 'Urussuhy' (07°14'S, 44°33'W; 124 m), erroneously mentioned in the original description as 'Iruçui' (see Naumburg 1935, Paynter & Traylor 1991). This site is on the east bank of the rio Parnaíba, Piauí, north-east Brazil. The specimen (AMNH 242687) is housed at the American Museum of Natural History, New York (Short 1973). Remsen *et al.* (2007) considered *C. obrieni* as a valid species based on morphological features, and the distance between its type locality and the range of its postulated conspecific *C. spectabilis* (more than 3,000 km), a treatment intially advocated by Whittaker & Oren (1999). Recent surveys near the type locality of *C. obrieni* failed to locate it (Novaes 1992, Silveira *et al.* 2001, Tobias *et al.* 2006) and the paucity of data for *C.*

Figure 1. Map of localities where Kaempfer's Woodpecker *Celeus obrieni* has been recorded.

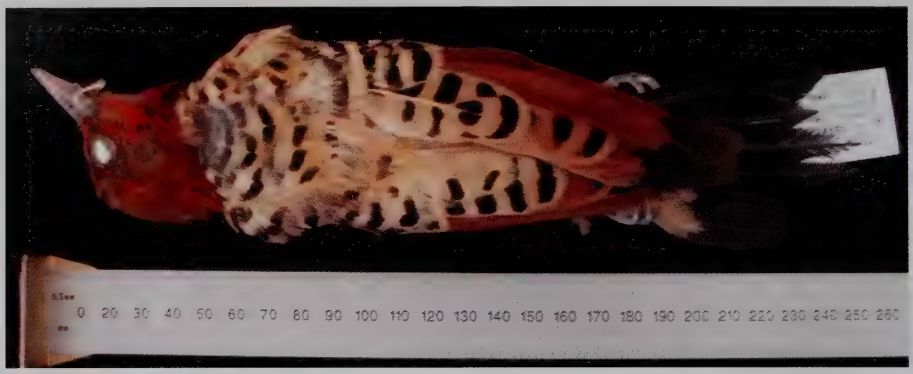

Figure 2. Dorsal view of male collected at Serra da Raposa, Maranhão, Brazil (MPEG 61549).

Figure 3. Ventral view of male collected at Serra da Raposa, Maranhão, Brazil (MPEG 61549).

obrieni led to it being treated as Not Evaluated and Data Deficient, respectively, on global and national lists of endangered birds (Machado *et al.* 2005, BirdLife International 2007). No additional records were known for *C. obrieni* until 21 October 2006, when it was rediscovered by Advaldo Dias do Prado (Prado 2006), who mist-netted and photographed a male in Goiatins municipality, Tocantins (08°14'S, 47°41'W), *c.*400 km south-west of the type locality (Prado 2006). Here, we report on a previously unpublished record and the first male specimen of *C. obrieni* obtained, respectively, in 2004 and 2007, at different localities in Maranhão, north-east Brazil. These records extend significantly the known range of *C. obrieni*.

On 26 September 2004, MFV tape-recorded and observed a *C. obrieni* in secondary riverine forest on the right bank of the rio Tocantins (05°09'S, 48°26'W; 100 m), São Pedro da Água Branca municipality, Maranhão (Fig. 1). Typical plant species in this area include: *Cecropia obtusa*, *C. sciadipholia*, *Inga capitata*, *I. heterophylla*, *Triplaris* sp., *Guarea guidonea*, *Celtis* sp., *Coccoloba* sp. and *Genipa*

americana. No bamboo was noted at the site. Bamboo is thought to be an important habitat component for *C. spectabilis* in parts of its range (Whittaker & Oren 1999, Clements & Shany 2001). The bird was perched on a *C. obtusa* near the forest edge, permitting all of the features typical of *C. obrieni* to be observed, including the yellow mantle barred blackish and the rufous head. The bird responded well to playback, approaching MFV and vocalising intensively for more than 20 minutes. Tape-recordings of these vocalisations were compared to others recently made by José Fernando Pacheco at Goiatins, thereby confirming the identification. Copies of the recordings have been deposited in the Arquivo Sonoro Prof. Elias Coelho (ASEC), Departamento de Zoologia, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil.

On 6 February 2007, MPDS tape-recorded and collected a male *C. obrieni* in a semi-deciduous forest with bamboo at Serra da Raposa (06°35'S, 43°37'W; 292 m), on the left bank of the rio Parnaíba, São João dos Patos municipality, Maranhão (Fig. 1). Vegetation at this site is characterised by the presence of tall trees reaching 8–20 m, with a closed canopy and open understorey. Small patches of bamboos form stands 4 m tall. The bird was initially attracted using playback of *C. spectabilis*, to which it responded well while perched in a bamboo thicket. It was collected and prepared as a study skin (Figs. 2–3). The specimen, a subadult male (50% skull ossification; testes 4 × 2 mm; weight 95 g; total length 265 mm; wing 140 mm; tail 86 mm; culmen 24.8 mm; tarsus 20.38 mm; irides white), was deposited in the Museu Paraense Emílio Goeldi, Belém, Brazil (MPEG 61549). This is the second known (and first male) specimen of *C. obrieni*. Comparison of MPEG 61549 with photographs of the female type specimen presented by Short (1973) reveals that the male has broader black barring on the back and between the black chest and abdomen. Further studies of the taxonomy of the species are being conducted by MPDS and will be presented elsewhere.

The new records presented here offer a new perspective on the distribution of *C. obrieni*. The site at São Pedro da Água Branca is *c.*485 km north-west of the type locality and *c.*350 km north-west of Goiatins. Serra da Raposa is *c.*160 km north-east of the type locality and *c.*480 km north-east of Goiatins. By linking the four known sites, we estimate that the species' range comprises *c.*90,000 km^2. Probably *C. obrieni* was overlooked for many years within this fairly wide range due to the small ornithological sampling effort devoted to this area (see Silva 1989, 1995).

To date, it is unknown if *C. obrieni* is dependent on bamboo like its closely related western Amazonian counterpart *C. spectabilis* (Winkler & Christie 2002). The association of *C. spectabilis* to *Guadua* spp. bamboo is a phenomenon apparently limited to south-east Peru and Acre, western Brazil (Whittaker & Oren 1999, Clements & Shany 2001). In eastern Ecuador, it is a *várzea*/river island bird, inhabiting successional stands of *Cecropia* with *Gynerium* and *Heliconia*, in the absence of bamboo (Ridgely & Greenfield 2001). Bamboo tends to be patchily distributed in the known range of *C. obrieni*. Thus, if the species is heavily dependent on bamboo, its distribution will be similarly local. Nevertheless, the

absence of bamboo in the forest at São Pedro da Água Branca suggests that *C. obrieni* is apparently not highly dependent on such vegetation. Further surveys should be conducted for *C. obrieni*, especially in the Tocantins–Parnaíba interfluvium, to locate new populations, study its biology and habitat requirements, and to assess its true conservation status.

Acknowledgements

MPDS is grateful to CHESF/MRS Estudos Ambientais and CNPq/PELD/Site 10 for financial support during field work in the Boa Esperança region. MFV thanks Sete Soluções e Tecnologia Ambiental, CAPES, and the Brehm Foundation for financial support of his field work. J. F. Pacheco made available comparative tape-recordings from Tocantins. F. F. Vasconcelos helped estimate the range of *C. obrieni* and M. S. Werneck to identify plant species at São Pedro da Água Branca. We also thank A. Aleixo, K. J. Zimmer, J. F. Pacheco, G. M. Kirwan, A. D. Prado and F. Olmos for revising the manuscript.

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Addresses: Marcos Pérsio Dantas Santos, Departamento de Biologia, Universidade Federal do Piauí, Av. Universitária 1310, 64049-550, Teresina, Piauí, Brazil, e-mail: marcospersio@uol.com.br. Marcelo Ferreira de Vasconcelos, Departamento de Zoologia, ICB, Universidade Federal de Minas Gerais, CP 486, 30123-970, Belo Horizonte, Minas Gerais, Brazil, e-mail: mfvasconcelos@gmail.com

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BOC Office
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Bulletin of the British Ornithologists' Club
ISSN 0007-1595
Edited by Guy M. Kirwan
Volume 127, Number 3, pages 169–252

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Printed on acid-free paper.
Published by the British Ornithologists' Club
Typeset by Alcedo Publishing of Arizona, USA, and printed by Latimer Trend, UK